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ORIGINAL COMMUNICATIONS.

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SUBJECT—*Medical Jurisprudence.*

Whoever undertakes to deliver an address on an occasion like this, may find himself embarrassed not by any difficulty in discovering a theme for his discourse, but by an obstacle just the opposite, yet almost as great; the difficulty of selecting from a multitude of topics. The range of medical and surgical science is so great, its schools are so numerous and dissimilar, its history is so voluminous and interesting, the mission of its followers is so noble, and the bright names on its roll of fame are so many, that almost every variety of theme—scientific, historical, biographical, ethical—is offered to the speaker. Is he a chemist?—he may speak of chemistry, for it belongs to the healing art. Is he a botanist?—he may pour forth his knowledge, for he treats of the materia medica. Is he a mechanician?—his finest model is the human frame. Is he a lawyer?—medical jurisprudence has been his study. Is he a metaphysician?—he may discourse of insanity, mind and matter. Is he a moralist?—the ethics of the profession invite his research. Is he a student of history?—he need not leave his domain when he speaks of medicine. Is he a hero-worshipper?—where can be found objects more worthy of his admiration than in medical biography?

Out of such abundance, the man of general knowledge finds it difficult to select, and even one of limited attainments is not wholly unembarassed. The safest rule is doubtless to keep as near as possible to his own peculiar province, if he have one. If he is a chem-

ist, let him talk of chemistry; if a botanist, of botany; and so, whatever is his specialty, let that be his theme. This rule requires me to speak of medical jurisprudence — a sort of common territory jointly occupied by Esculapius and Themis. What is Medical Jurisprudence — or, as it is sometimes called, Forensic Medicine? We all know the meaning of the word "medical;" that it signifies that which pertains to the cure of disease; and we also know that by "jurisprudence" is meant the science of the law; but when we put these two words together the idea sought to be conveyed is by no means clear. If we use the term "criminal law," it is at once understood that we refer to the laws for the punishment of crime. If we speak of "land law," or "commercial law," it is easily apprehended that we mean the laws relating to real estate, or to commercial transactions. In each of these terms, and in others that might be named, the adjective prefixed to the word "law," designates the object upon which the law operates. We say "criminal law," because the law spoken of operates upon criminals; "land law," because it regulates the possession and enjoyment of land; "commercial law," because it governs commercial pursuits.

But when we speak of Medical Jurisprudence, or Medical Law, the analogy fails, for we do not refer to a law that governs medical transactions. We have no such special law, at least in this State. Even the license system that once had a place in our statute book, has long since been expunged from it; and while in some countries, the humblest apothecary is required to study his art for years, and to pass successfully a rigorous examination before he is permitted to exercise it, in Ohio there is the most perfect free trade in medicine. Allopathist or homæopathist, hydropathist or steam-doctor, eclectic or indian, spirit rapper or biologist, much medicine or little medicine, water or vapor, mineral or root, clairvoyance or conjuration — the law gives them all fair play, and leaves it to the common sense of mankind, or a dear bought experience, to discover the true and reject the false.

I say nothing of the wisdom of so experimental a policy as this: I merely note the fact that any day in the week, any man or woman in Ohio may write M. D. after his or her name, and without an hour's previous study, commence the practice of medicine; with no other legal responsibility than that which attaches to every person, in whatsoever calling, who injures another by his want of skill.

Such being the law, the duty of the men of real science, I may

remark in passing, is obvious. It is to them that the people must look for protection against the impositions of quackery, and it is only by the manifestation of their superior excellence that this protection can be afforded. It becomes them therefore, to see, that their system of medical education is thorough, and that no one shall be permitted to leave their halls with the fiat: "Let him exercise his art," who is not reasonably well qualified to do so. It is quite possible—nay, perhaps quite probable—that the adept of even a bad system, comparatively speaking, may be a more successful practitioner than the half instructed student of a good one, while it is very certain that the ignorant follower of either is more likely to bring it into disgrace than to uphold or advance its credit.

I do not mean by these remarks to assert that no one should commence the practice of medicine until he is a thoroughly skilful physician; for that, I imagine, would be to demand an impossibility. Thorough skill in any art, is the result of practice combined with theoretical knowledge, and cannot be attained otherwise. Even the astronomer or mathematician must acquire the ready use of his instruments by practice; and the lawyer, though there is but little of experimental philosophy in his profession, must learn by experience how to use his legal lore. How much greater the necessity, in an art so eminently experimental as that of medicine, and requiring in so high a degree the habit of observation and quick apprehension, for practice to be combined with theory to make the skilful practitioner.

But while it is sufficiently obvious that study alone, without practice, will not make a physician; it is also true that if he commence his career without sufficient preliminary study, however eminent he may ultimately become, he is in danger of acquiring his knowledge at the expense of the suffering, sometimes I fear the lives, of his fellow men.

To return from this digression: Medical Jurisprudence, as commonly defined, "is that science which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice." In other words, it is the administration of law enlightened by medical knowledge. It is not the jurist sitting in judgment upon the medical man, but it is the latter aiding the former to discover the truth. As in a case involving a question in mechanics, witnesses versed in the art are called upon to testify; so, in a case involving a medical or surgical question,

physicians or surgeons are in like manner called; and as, in the one case, the term "Mechanical Jurisprudence" might, for convenience, be used, so in the other, may we employ the term, "Medical Jurisprudence."

Medical Jurisprudence, in fact then, embraces the whole field of medical knowledge, for there is no portion of that knowledge that may not, at sometime, be needed to elucidate a litigated question. Not to mention other instances, it would be sufficient to observe that in the exercise of any branch of his art, in the treatment of any case under his care, the medical man is liable to be accused of malpractice; and in general it is by medical testimony alone, or mainly, that he is either condemned or acquitted.

The science then is commensurate with medical knowledge—and now a word as to its importance.

Upon the practice of the physician, often depends the health, perhaps the life, of the patient—upon his testimony may depend the fortune, the reputation, or even the life of a litigant.

Imagine a trial on a charge of malpractice, before a jury wholly ignorant, as is almost invariably the case, of any knowledge of the subject except what they get from the testimony, and not qualified by any previous education to judge correctly of that. It is obvious that they must mainly rely—and to their credit be it said, they in general do so—upon the opinions of the medical witnesses. How important then that these opinions should be enlightened and well founded. On the one hand, the right of the plaintiff to redress, as far as money can afford it, if he has been wronged; on the other hand, the fortune, and what is infinitely dearer, the reputation of the defendant, are at stake. Take a yet more important case, a trial for murder where the verdict turns upon the question whether the deceased came to his death by poison, or whether a wound was mortal, or whether the defendant is insane—and the life of a fellow man hangs upon the words that fall from the physician's mouth. And these are not uncommon cases, nor are they a tithe of those that depend mainly upon medical testimony.

Having thus attempted to define what is meant by Medical Jurisprudence, and to give some idea, however faint, of its importance, let us turn for a moment to its history.

It might be supposed from what I have said, that this science is as old as society itself; for as medical testimony must have been needed as soon as there was law, it is natural to think that the science of forensic medicine is coeval with the institution of courts.

This idea is not wholly without foundation, and hence one of the most eminent writers upon the subject finds traces of the science in a very high antiquity. But the same writer is compelled to admit that "all the laws of the ancients, and all the facts drawn from their history, are to be considered as the first glimmerings of knowledge on this subject — and knowledge, too, founded on the imperfect diagnostics which medicine afforded at that early period." This is undoubtedly true, and it is equally true that it was not until a comparatively recent date that the science received any great development and became a distinct branch of medical and legal study.

The causes of this delay are not of difficult solution. There is in the human mind a reverence for antiquity that leads us to gratify our pride by asserting for ourselves or our callings an ancient origin; and there is also a pedantry of learning that displays with exaggerated solemnity, a long list of names of almost antediluvian notoriety. Add to these the spirit of incredulity that is perpetually saying, with Solomon, "there is no new thing under the sun," and we are prepared to understand the inordinate estimate, sometimes made, of the learning of the ancients, and the surprise, not unfrequently felt, at the discovery that a science, or an art, with which we are familiar, is, in truth, comparatively modern. That Hippocrates and Galen were great geniuses and very learned men, it would be both fruitless and unjust to deny; but that they were superior in intellect, or equal in attainment, to the great lights of medical science in modern times, it would be just as absurd to assert.

While I have little sympathy with the boastful spirit that ignores the past and claims all that is good for the present generation, I think the opposite error that rejects whatever lacks the stamp of antiquity is yet more pernicious. Even in government, the most ancient of human institutions, the world has not existed long enough, said Mr. Burke, to discover a single principle of universal and unexceptionable application. In agriculture, one of the oldest of human pursuits, there is scarcely such a thing as a fixed and unvarying rule.

In ethics, and their handmaid law which attempts their practical application — how much remains in a state of painful uncertainty?

In mathematics, even, what great and important problems are yet unsolved; while in astronomy and the almost boundless domain of natural history and philosophy, what discoveries are daily made,

and how small the sum of the known to the grand and mighty mass of the unknown ?

And is it to be supposed that medicine is exempt from this slow and tedious, but never-ceasing, never-ending, law of progress; and ought we to feel surprised that what now seems to us the first dictate of reason, was a thing unheard of for ages after ages of our race ?

Let us not then be astonished at the tardy growth of medicine, for the tortoise and not the eagle is the emblem of the march of mind — a fact so humiliating that we would gladly deny it if we could, but that truth compels us reluctantly to admit.

It is not however to the slow process of medical proficiency that the late development of medical jurisprudence is alone to be attributed. The law must come in for a full, if not a greater share of the responsibility. Imperfect as the administration of justice yet is, it is an angel of light compared with a demon, when contrasted with the administration of injustice that prevailed less than two centuries ago. It will scarcely be credited by the uninformed, that not so much as two hundred years have passed away since, throughout the greater part of Christendom, the first step in a criminal prosecution was to place the accused upon the rack to extort by his torture a confession of his guilt; that the witnesses against him were more frequently examined in his absence than before his face, and were but seldom cross-examined; that no process was allowed him to compel the attendance of his own witnesses or to require them to testify; that the merest hearsay, not even delivered under oath, and the confessions of alleged confederates seeking to purchase favor to themselves by the accusation of others, were deemed competent evidence against him; that while the government was represented by the ablest and most skilful of the bar, the privilege of counsel was denied to the accused; that the juries were packed by the minions of the State, and the prisoner insulted and brow beaten by both court and prosecutor, when a conviction was desired; that if nevertheless, the jurors dared to be independent and acquit the innocent, they were themselves liable to unlimited fine and imprisonment; that even the slight protection of a jury trial was not generally afforded, but, in most countries, a tribunal holding office at the pleasure of a tyrant, made the administration of criminal law the mere instrument of his arbitrary will — and yet such is the melancholy truth and the picture is still but half drawn.

It has long been customary to laud the justice and humanity of the common law of England, and as compared with many codes, it has ever deserved to be highly praised, and yet every one of the enormities I have mentioned was constantly perpetrated by our English ancestors, and most of them less than two centuries ago. Not even the torture is an exception; for although its use was by no means so common as on the continent, and was frequently and earnestly declared to be a violation of Magna Charta, yet it is incontestably established that it was employed when all other means of condemnation were likely to fail.

Now need I ask what room was there for the medical witness in these dens of barbarism, miscalled Courts of Justice? To the government he was unnecessary, for it had shorter and more certain means of conviction than his testimony could afford. To the prisoner, what service could he render, when a confession of guilt had already been extorted by the rack? True, the confession might be false, a self-accusation wrung by agony from suffering innocence; yet, false though it might be, what chance had science to control its effect?

Indeed, so far from wondering at the late development of medical jurisprudence under circumstances like these, the true ground of wonder is, that it had any development at all; instead of condemning the medical man for not being always heard, he is entitled to everlasting gratitude that in such times, and even at his own peril, he was ever heard.

But absurdity and injustice, though tenacious of life, are not always invincible, and humanity and reason, though slow of march, do sometimes reach the goal. The enormities I have named have fled from the temples of Themis, and with their departure, the science of medical jurisprudence, emerging from the obscurity in which it had long lay buried, began, in the healthful air of a pure administration of the law, that wonderful growth that has marked its recent history, and whose glorious result is the imposing stature and beneficent presence it now presents.

It will not, of course, be expected that I should attempt in the limits of an address, what it would take volumes to accomplish, the consideration of my subject in detail. To draw even a general outline of its various departments would require far more time than I have at my command. The single topic, Insanity, is an ample theme for the most elaborate discourse, though nothing were pre-

sented beyond the most general ideas. The subject of poisons is yet more prolific. The diagnostics of death by violence are equally fruitful. And these are but a few out of many heads, all of importance, that belong to the science.

I shall therefore devote the few remaining moments of my time to some remarks upon the mode of trying cases involving medical questions; a mode that has sometimes been severely criticised, though, as it seems to me, without sufficient consideration. The objection principally urged is, that our courts, as constituted, and especially our juries, are wholly incompetent to the decision of such questions; that in order to their correct determination the triers should be men versed in the medical art; and that from none others can a true verdict be certainly anticipated.

That courts and juries are liable to err, is too obvious for denial—it is the lot of humanity—and that a jury of physicians would be more likely to decide a medical question correctly, than would be a body of non-professional men, may be also admitted; but it by no means follows from these premises that the present mode of trial is wrong. If medical questions should be tried by medical men alone, upon the same principle, mercantile questions should be tried by merchants, financial questions by bankers, mechanical questions by mechanics, agricultural questions by farmers, and so on to the end of the chapter of human occupations. Now were there no other objection to this idea, it would be quite sufficient to say that it is wholly impracticable. Where is a suitable number to be found of doctors, surgeons, merchants, bankers, engineers, architects, masons, carpenters, founders, jewelers, watch-makers, and others, to try the questions relating to their respective callings?

And if they could be found, is it not quite apparent that a tribunal thus constituted would fail to give satisfaction; that however correct might be its decisions, it would be an object of suspicion; and that however unjust might be the accusation, it would be charged with being influenced, at one time, by an esprit du corps, at another, by feelings of rivalry or envy? But a more complete answer, if possible, yet remains, and that is, that it is not the province of any tribunal for the trial of facts, to decide upon its own individual knowledge. The oath of the juror is that he will decide according to the testimony, and if he know anything that is material to the cause he must be sworn as a witness and be examined as other witnesses are examined. And this is as it should be, for it is indispen-

sable to the correct administration of justice that all testimony, of whatsoever nature, shall be produced in open court, in order that it may be rejected if improper, or explained, rebutted, examined and commented upon if admissible. Were any other course allowed, it would be impossible for any litigant to tell, when the jury retired, what was the testimony in his case, or for the court to tell, after the verdict was rendered, whether it ought to stand or be set aside. The case would, in effect, be tried upon ex parte testimony, mainly, and even that undisclosed except to the triers. But the decision of no tribunal, however pure may be its intentions, that proceeds upon ex parte testimony, or without the argument of counsel, has the least claim to be relied upon. There is no more meritorious institution than that of the Grand Jury, yet how many false indictments are annually presented?

There are, or at least ought to be, no more intelligent or impartial men than our legislators, yet how many unjust accusations may be found in legislative reports?

The reason for all this is not so much any want of understanding, or of a general knowledge of the subject, as the want of that thorough and public investigation that takes place only upon the proper trial of a cause. And this leads me to say that the danger of wrong verdicts is much less than is generally supposed; and when we remember that the court has the power of setting them aside, I think we may rest secure that, except in rare instances that human foresight can hardly guard against, substantial justice will be done. I have never, in a long experience, known a verdict rendered by a jury upon a scientific question, against the clear, decided and unshaken testimony of a respectable body of scientific witnesses. Nor have I ever found a jury incapable of appreciating the circumstances under which a professional man is sometimes called upon to act. Show, for instance, to any honest juror, however illiterate, that a patient must have died, or lost an organ, unless an operation were performed, and that there was a possibility of benefitting him by an operation, and he will never be unreasonable enough to condemn the surgeon who performed it because its success was not infallible. On the contrary, he will honor the conscientious and self-sacrificing spirit that prompts the discharge of a duty, which, if attended with success, may perhaps never be known, but which, if unsuccessful, may be blazoned to the world and afford a ground for unjust reproach.

For these and other reasons that might be added, I am satisfied that the present mode of trial is substantially correct, and that the idea of a trial by experts is altogether impracticable, and were it not so would in general be found inexpedient. That there is room for improvement of the present mode, I am quite ready to admit, but that it will, or ought to be, radically changed, I do not believe.

In conclusion, let me say that the future of Medical Jurisprudence is the future of medicine itself, for the law no longer interposes any serious obstacle to its improvement. In every court now, upon a medical question, the physician is a welcome witness. His opinion is sought with eagerness, listened to with respect, considered with care, and when he and his brethren unite in their judgment, they, in effect, decide the cause.

To you, therefore, gentlemen of the Healing Art, will hereafter belong the chief glory of giving to this science additional lustre and making it yet more beneficial to mankind, as upon you will rest the chief responsibility should it ever unfortunately fall into disgrace. Yours is a most noble calling—to be the ministers of health and its consequent happiness to your fellow men; and to be the ministers of justice, as you are, when by your ability and learning, you detect the guilty or shield the innocent. In the fulfilment of this mission you have the sympathy of every true lover of his race, and what is of far more value to a right-minded man, the consciousness of having meant well and deserved well in his career of life.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

Art. I.—*Treatment of Fevers.*

1. *Continued Fevers*—In the London Medical Society, Dr. Semple read a paper on the *prophylactic and curative treatment of continued fevers*, the more practical portion of which, together with the debate thereupon, is extracted from *The Lancet:*

In reviewing the remedies employed in the general treatment of fever, blood-letting, which was formerly so strongly recommended,

was now contra-indicated, in consequence of the alteration which had taken place in the type of disease, although, so lately as 1830, bleeding was practiced in fever with success. Putting the lancet out of the question even leeches and cupping-glasses must be used with great caution in modern practice; and it must be remembered that any mode of depletion was less easily borne by patients in a hospital than in private practice; because in the former, the lowering influence of the poisoned atmosphere affected the vital powers, and tended to produce collapse.

Mercury, which was once extolled as a remedy in fever, possessed very little power over that disease, although in former years it may have been efficacious; and it was an error in modern practice to adhere to the routine custom of giving mercury in this and other diseases, when experience has shown that this mineral, indiscriminately employed, is more injurious than beneficial.

Quinine, which is a very valuable remedy in intermittents and remittents, could not yet be said to be equally efficacious in continued fevers, at least not in cutting short that disease; and the treatment, by large and frequent doses of this alkaloid, had not been found so successful in other hands as in those of Dr. Dundas, who strongly recommended its employment in this manner. Dr. Semple did not consider this question as finally settled; but he placed great reliance upon the careful observations of Dr. Barclay and Dr. Peacock upon the subject. Purgatives were also injurious when carried to any length in the treatment of fever; for they always tended to produce depression, even if, as by irritating the inflamed bowel in typhoid fever, they were not positively mischievous. The mildest aperients should therefore be employed, and amongst the best of these were small doses of castor oil.

Typhus and typhoid fevers, as they were different in their nature required different methods of treatment. In the first, the tendency to depression must be combatted by wine, brandy, carbonate of ammonia, and other cordials and stimulants; and to relieve the head symptoms, the head should be shaved, and a blister applied to the nape of the neck; in the second, or typhoid fever, the necessity for stimulants at first is not so obvious; but the inflamed and irritated bowel should be an especial object of care, and constipation and diarrhœa, which may alternately prevail, must be met by appropriate treatment; the former by mild mercurials and alteratives; the latter by astringents, opium, and acetate of lead.

The prophylactic treatment of fevers was even more important than the curative, for when a fever was once established its issue was doubtful, and its treatment difficult. Typhus fever was certainly the most contagious, while typhoid arose from local or endemic causes. The establishment of fever hospitals he (Dr. Semple,) regarded rather as a necessary evil than as a positive good; they certainly diminish the danger of this disease in the localities from which the patients were drawn, but they spread it in the hospital itself; and probably the best hygienic treatment of fever was to

isolate the patients, if that could be accomplished, by placing them in situations which were airy, clean, well ventilated, and remote from one another.

Mr. Harding did not agree with the author, that writers on fever had not altered their opinions since 1830. He believed they had; and the type of disease had not changed. Synocha in that year was almost unknown; and he had seen scarcely any cases since. Synochus, on the contrary, was more common both then and now. Bleeding was resorted to, because at first the disease was inflammatory; but collapse soon followed. Experience showed that this collapse was more to be dreaded than the inflammatory state; and we then came to treat the complaint on the expectant principle. The change of treatment was the result of experience, and a better understanding of the disease, and was not due to a change in its type. With respect to cases not doing well in hospitals, he thought this was due to the fact that the sufferers were among the lowest class of persons, who had been enfeebled by privations. The fact however, applied more particularly to *general* than *fever* hospitals.

Dr. James Bird had observed the difference which had prevailed in regard to the treatment of fever during the last thirty-five years, and considered that the substitution of a mild form of treatment for depletion was not due to a change of type in the disease, but to our improved knowledge of its pathology. He did not agree in the division of Dr. Jenner of fevers into typhoid and typhus as being essentially different; and considered that patients laboring under typhoid fever might, by the emenations from their bodies, under depressing circumstances, generate typhus.

Dr. Thudichum referred to the researches of Pettinkoffer as to the causes of typhus in Munich and other German cities, which he had found to depend on decomposing fæces and urine, the drainage in that and other towns favoring the percolation of the excrement and urine from the soil. He referred to the fact, that in typhus the fæces have an alkaline reaction, whilst, under circumstances, the reaction was acid. The urine also contained large quantities of urea. He suggested the use of the phosphoric acid, in the proportion of two drachms to half a pint of water, in cases of typhus.

Dr. Camps referred to the influence of decomposing animal matter generally on the production of typhus, and mentioned two or three cases in point.

Mr. Edenborough believed that the type of the disease had altered to a great extent during the last twenty-nine years. The stage of collapse was not so marked then as at the present time. Depletion could then be resorted to, to a greater extent, and with greater benefit.

Dr. Headland inquired if Dr. Semple had finally decided that quinine was useless in cutting short typhus, or typhoid fevers; the two objections which had been raised to its administration in these diseases, he [Dr. Headland] suggested might be overcome.

The first objection to its use was the dry state of the tongue and skin; the second, the danger of irritating the stomach by the large

quantity of quinine required. The first might be overcome by the previous administration of a small dose of tartar emetic; the second, by giving the quinine largely diluted, say with half a pint of water, with the addition of a small quantity of a vegetable acid. He objected to an enema of acetate of lead and opium, as a decomposition would take place.

Dr. Semple, in reply to the observations of some of the speakers, must adhere to the conviction, that the type of disease had undergone a change during the last twenty years, and that he could not condemn the treatment formerly employed, inasmuch as it was applicable to the epidemics of the period. He could not agree with Dr. Bird that typhus and typhoid fevers could be interchanged in any degree; but he believed that they ran their course distinct from each other. He had indeed seen cases which were recovering from typhoid, fall into typhus by contagion, but this seemed to him to prove the non-identity of the two diseases.

ART. II.—*Topographical and Sanitary Observations on the Delta of the Mississippi.* Extract from the Journal of a Tour in America. By R. RUSSEL,* Kilwhiss, Fifeshire, Scotland.

FEBRUARY 14, 1855.

Before reaching Fort Jackson, a belt of trees, perhaps one hundred yards in breadth, occupied both banks along the river. They consisted of willows, elms, alders and fan palms, which last were from six to ten feet in height. Several full-sized and beautiful orange trees, heavily laden with fruit, were growing within the ramparts of Fort Jackson. After passing the Fort, the river is embanked on both sides, and the land is chiefly in the possession of small proprietors. There are a good many orange-groves along the river: the fruit was all gathered, but the dark-colored evergreen leaves relieved the wintry aspect of the scenery. The trees in the swamps are all deciduous, with the exception of a few live oaks; and the willow alone was putting forth its light green leaves.

For thirty miles above Fort Jackson, small rice plantations are very common on both banks. And it is worthy of observation, that these settlements are comparatively healthy for white persons, who in many cases cultivated the crop with their own hands. The cultivation of the rice crop is effected by a very different process from that which is followed in the tidal swamps of Carolina.

Notwithstanding the swampy nature of the country at the mouth

*As a learned and useful laborer in science, Mr. Russel has been highly complimented with public damonstrations and substantial testimonials by his compatriots. The amenity and simplicity of his manners cannot fail to create friendship. During last year, he read an elaborate and much commended paper on the Meteorology of the United States and Canada, before the meeting of the British Association for the advancement of Science.—ED. N. O. MED. & SURG. JOURNAL.

of the Mississippi, as already observed, it is more healthy to the white inhabitants than any other part of the delta. The small rice plantations, even in the lower parts of the river, are more salubrious than the sugar and cotton plantations which are under dry culture. Indeed, in hot countries, it seems to be the universal experience that the cleaning and cultivating of rich alluvial lands render these countries more unhealthy than they were when covered with the natural vegetation. The swamps of the Mississippi, Savannah and all other southern rivers, as well as the interior swamps, such as in the Carolinas* were not unhealthy in their natural state; they have only become so since they were brought under cultivation.

The most satisfactory theory of malaria is that which has been proposed by Liebig in his brilliant chapters on *putrefaction, fermentation and decay*. The miasmata, which produce the various endemic diseases, are ingeniously supposed to exert their virulent influence on the human body by entering the system as gases, and acting on its fluids as a species of ferment. The decomposition of animal and vegetable substances assumes, under certain conditions, very different characters, and gives rise to very different products, which may or may not have a prejudicial influence on the system. It has been generally taken for granted, that marshy grounds are necessarily more unhealthy than dry, and it has been forgotten that numerous exceptions to the rule are found in all countries. The exceptions, however, appear to be all connected by one principle.

Some years ago, I pointed out that it was a well understood fact in Scotland, when some of its inhabitants were very subject to ague, that wet clay soils produced that disease, while wet peaty soils did not. The character of the decomposition of the vegetable matter taking place on clay and on peaty soils being different, the emenations which arise from the former seem to have a deleterious influence on the human system, while the latter are quite innocuous. Indeed, our peat-mosses in Scotland have decided antiseptic properties, which no doubt serve to retard decomposition, and the products of decay are quite peculiar. Among these peculiar products, the vegetable extract that imparts the dark brown color to many of our Highland rivers is well known.

Now, it is rather curious that all the swampy districts which are healthy in the southern States are characterized by the water being colored by this vegetable extract. In the great Dismal Swamp of Carolina, Sir Chas. Lyell says: "The water is transparent, though tinged by a pale brown color, like that of our peat-mosses."† Itap-

*It is to be remarked that the climate, in the interior of the swamps, is far from being unhealthy. Lumber men, who spend great portions of the year in it, cutting shingles and staves, testify to the general salubrity of the air and water. The opinion prevails among them, that the quantity of Pine (?) and other resinous trees that grow there, impart a balsamic property to the water, and impregnate the air with a healthy resinous fragrance, which causes it to be an exception to the usual rule of the unhealthiness of swampy land.—*Dred, a Tale of the Great Dismal Swamp.* By Mrs. Stowe.

†Lyell's Travels in North America, vol. i., p. 1847.

pears that all the water in the swamps of the southern States is of the same character, and it is very probable that the fact of its being so, is indicative of the vegetable accumulations from which it proceeds, undergoing that species of decay which is not an unhealthy one.

Dr. Hooker, in his *Himalayan Journals*, writes: "The climate of Chattuc is excessively damp and hot throughout the year, but though sunk amid interminable swamps, the place is perfectly healthy. Such, indeed, is the character of the climate throughout the Jheels, where fevers and agues are rare; and though no situations can appear more malarious to the common observer than Silhet and Cachar, they are in fact eminently salubrious.

These facts admit of no explanation in the present state of our knowledge of endemic diseases. Much may be attributed to the amount and *purity* (?) of the water, the equability of the climate, the absence of forests, and of sudden changes from wet to dry; but such facts afford no satisfactory explanation. The water, as I have above said, is of a rich chesnut-brown in the narrow creeks of the Jheels, and is golden-yellow by transmitted light, owing, no doubt, as in bog-water and that of dunghills, to a vegetable extract, and probably the presence of carburated hydrogen."

The climate of the southern States of America is in every way the opposite of that of the Jheels, for it is anything but equable; forests abound, and the changes from wet to dry are great and sudden. The only conditions that seem to be common to the healthy swamps of America and of India are large *accumulations* of vegetable matter, resembling our peat-mosses, and the presence of this brown-colored water. Modern geologists have been too hasty in assuming, that the high temperature of the summers on the borders of the tropics is sufficient to prevent the accumulation of vegetable matter, such as is the case in higher latitudes where the natural vegetation in moist situations of one year does not rot away during the next.

Sir C. Lyell supposes the shade of trees is essential to the accumulation of vegetable matter in so low a latitude, 34°, as that of the Dismal Swamp, where there is a deposit of peat from 10 to 15 feet in thickness. But according to Dr. Hooker, accumulation takes place in the Jheels, which are on the borders of and even within the tropics, where there are no trees. In another part of his "Journals" he writes:

"The soil, which is sandy along the Burrampooter, is more muddy and clayey in the centre of the Jheels, with immense spongy accumulations of vegetable matter in the marshes, through which we poked the boat-staves, without finding bottom; they were for the most part formed of decomposed grass roots, with occasionally leaves, but no quantity of moss or woody plants."

In fact, it appears that these accumulations of veget ble matter, which impart the peculiar tinge to the water in the Jheels, have as close a resemblance to our peat-mosses as the different climatic conditions admit of. The decaying process is arrested in both cases,

and hence it is probable that this circumstance is the cause of the Jheels, as well as swamps of the southern States in their natural condition, like our peaty districts, being comparatively healthy.

But the cultivation of damp soil, by which it is exposed to the atmospheric influences of a hot climate, invariably gives rise to malaria. Even the first effect of draining marshy grounds is to render them less salubrious than they were in their natural state. For this reason, the Campagna in Italy became much more unhealthy, as Dr. Arnold states in his *Roman History*, after its drainage. As already observed the sugar and cotton plantations, in the bottom lands of the Mississippi, are less healthy than the undrained swampy lands in the lower parts of the delta. The malaria of the rice fields of Italy, and of the tidal swamps of Carolina, is of a very deadly character. The practice adopted in these parts of laying the fields dry at intervals during summer and autumn, and exposing them in a moist state to the sun, seems to favor the production of deleterious exhalations. But as Captain Smith, when referring to the experience of India, very properly contends, in his excellent work on Italian Irrigation, there is nothing deleterious in the mere culture of rice, but in the mode in which the irrigation is managed. Where there is no stagnation of water, the rice fields are not unhealthy. This opinion, I may here remark, is confirmed by the fact that the rice grounds at the mouth of the Mississippi, on which the water is not allowed to stagnate, are more healthy to the whites than the sugar and cotton plantations on the rich alluvial lands.

As we sailed up the river the air was cold, and at night became quite frosty. Next morning, when we landed at New Orleans, the hoar-frost was lying white on the wharves. During the day, however, the sun shone out with great brilliancy, and the temperature was pleasant and bracing. The wintry aspect of vegetation in the swamps of the Mississippi, and the dingy houses of the Crescent city, do not impress one at this season very favorably, after having left so lately gay Havanna and its lovely neighborhood.

* * * Yellow fever makes its appearance almost every summer at New Orleans, and commits great ravages among those who are not natives of Louisiana. The last severe visitation of this pestilence occurred in 1853. According to Dr. Bennett Dowler, the population of the city was 150,000 when the epidemic broke out in June, but 30,000 fled to the country, and up to the 1st of November the aggregate mortality from yellow fever was 8,451 deaths. At no former period did the malady spread so much over the country as in that year; for all the small towns in Louisiana and Mississippi suffered.

If cleanliness would assist in mitigating the ravages of this fearful pestilence, as it certainly does in other epidemics, the city authorities are blameable for the filthy state of the streets. The sewers are open, and the putrid exhalations are very offensive even at this cold season; this state of things is the more inexcusable, as an abundant supply of pure water might be easily raised from the Mis-

sissippi, even when the river is low, to sweep the filth of the streets towards the swamp.

NATCHEZ.—At Natchez the features of the country are much changed. At Baton Rouge, 129 miles above New Orleans, the east or left bank of the river is about twenty-five feet higher than the recent alluvial deposit, and belongs to a different geological formation. This formation consists of a compact silicious clay, containing fresh-water shells of the same species as those which are still living. The raised land at Baton Rouge is the first appearance on the Mississippi of the vast plain or table-land that stretches towards the Lakes, with an easy ascent of less, on an average, than one foot to a mile.

At Natchez this formation rises about two hundred and fifty feet above the river, and forms, from being undermined by the river, a precipitous bank of that height, while the west bank is low, and the plantations are protected by levees.

The high table-land forming the precipitous bank at Natchez is broken in the vicinity of the river, as in other northern States, into a series of rounded eminences, by the action of the streams from the interior of the State. The face of the country, from this cause, is somewhat irregular in the neighborhood of Natchez, but it soon becomes less so a few miles inland.

The same formation that is found in the bluffs at Natchez extends for upwards of twelve miles to the east of the Mississippi, and the surface soil over this region is one of the finest for the growth of upland cotton in the southern States. It is upwards of one hundred and fifty miles from North to South, and was originally covered by a magnificent forest of hard wood. The soil is naturally very fertile, consisting of a friable vegetable mould, from a foot to a foot and a half in depth. Indeed, it is one of the richest and most easily cultivated soils that I ever saw.

Rich as these upland soils are when first broken up, they are subjected to certain deteriorating agencies which we hardly know anything of at home. This does not arise merely from the exhausting system of culture that is followed, but also from other circumstances. As was formerly mentioned, the sub-soil is a compact sandy clay, which does not crack with drought, and is little pervious to air or water, and for this reason, perhaps, it is not genial to vegetation. Now it must be remembered that the most of the rain in this region falls in heavy thunder-showers; indeed, from three to four inches of rain sometimes fall in one prolonged thunder-storm. The beautiful surface soil is rendered loose and free by cultivation, and these deluges of rain surcharge it with water which cannot descend into the sub-soil. At length the water bursts in torrents down the slopes, and carries large quantities of the earth with it into the streams, and thence to the Mississippi. Thus the land would suffer more waste under fallow than under crop, for vegetation assists in checking the destruction.

From Natchez to Washington, a distance of six miles due eastward, the most of the country is irregular, and all the sloping land is

ruined, for the fine soil has been as completely carried away by washing, as if it had been dissolved. Little remained but the subsoil, which is almost as unproductive as the pine barrens of Carolina.

Almost everywhere in America the quality of the soil is indicated by the kind of trees which grow upon it. The first settlers found these uplands covered with a magnificent forest, consisting of liquid-amber, elm, ash, white and red oak, cherry, magnolia, mulberry and the wild grape, as well as now and then a solitary pine. The greater part of this fine forest is cleared away, and the land is now under cotton cultivation, or abandoned as exhausted. Here and there, however, a patch of the original forest is to be seen to attest its former grandeur. When the land is first cleared and the brushwood burned, the stumps are allowed to stand until they moulder by natural decay. By the slightest scratching with the plough, this virgin soil has in many instances been taxed with from fifteen to twenty crops of Indian corn or cotton in succession.

Not only is the exhaustion of these soils exhibited in the inability of the land to produce cotton or Indian corn, but the oak, the magnolia, and the other broad-leaved trees that flourish on these soils in their natural state, no longer find those conditions which are favorable to their growth. It is a curious fact, that if the primeval forest is cut down, and the soil is not wasted by washing or cropping, the same trees will again spring up and occupy the ground. But it is still more curious, that totally different trees make their appearance in all cases in which the land has been exhausted by tillage, and afterwards abandoned to nature. In the latter case, the pine and crab-oak alone occupy the ground. These facts are directly opposed to Decandolle's theory of rotation of crops. The substitution of the pine for the oak and magnolia in the exhausted soils of the Natchez uplands is evidently owing to the altered physical condition of the soil.

Horticultural experience favors this view of the matter. Fruit trees do not thrive well on those exhausted soils, and this cannot be ascribed to mere sterility, for the apple tree flourishes and produces abundance of fruit on the granite gravels of New England, which would certainly be too poor for cotton, though the climate there had been as favorable as in Mississippi State. It is probable that the ungenial nature of the subsoil, arising from its close and compact nature, cannot maintain the magnolia and peach in healthy growth, both of which must send their roots into a medium capable of supplying them with sufficient moisture during the torrid heat of summer. I was informed that neither the peach nor any other fruit tree would thrive on the exhausted soils, however well they were manured, unless the ground was cultivated by the plough or the spade. If the cultivation is neglected, many of the leaves drop off during dry weather; and in no long time after the rains again set in, the fruit becomes quite dropsical, and falls off too. The same kinds of fruit trees do well on unexhausted ground without any cultivation or manure. These facts all point to the view that I have already ex-

pressed: that in these instances it is the physical condition of the soils which determines the particular kinds of trees that flourish on exhausted and on unexhausted soils. The pine, it is probable, evaporates less water than the broad-leaved trees, and it can therefore thrive in dry sandy soils, where other trees cannot. Sir Humphrey Davy, I think, says, in some of his lectures on agricultural chemistry, that plants with glossy leaves do not evaporate so much water as others. Is it because the thick glossy leaves of the live oak evaporate little moisture that we find this the only hard wood tree that grows, beside the long-leaved pine, on the dry sands of the pine-barrens?

ART. III. — *Mental Labor; Its Effects on the Blood.* Read before the Medical Society of London, November 29th, 1856. By THEOPHILUS THOMPSON, M. D., F.R.S., Physician to the Hospital for Consumption and Diseases of the Chest, &c.

The progress of civilization, notwithstanding the incalculable benefit with which it is attended, nevertheless involves many countervailing evils; but it is impossible to direct much thoughtful observation to the present condition of the world, without being impressed with the conviction that, amongst the causes of disappointment associated with modern advancement, there are some which are not necessarily irremediable. Among the subjects for inquiry intimately related to this topic, there are few which are more likely to reward investigation than those which regard the reciprocal influence of mental and physical conditions.

The invention of printing, by the aid of which civilization has been pre-eminently promoted, in giving permanance to acquired knowledge, has so raised the general standard of attainment and taste, that distinction in the walks of literature or science can rarely be attained, excepting by an amount of assiduous labor such as can be endured only by individuals whose constitutions are distinguished by a peculiar combination of physical and intellectual energy. As the number of aspirants to distinction multiplies, sympathy becomes more intense, taste more fastidious, competition more keen, and the craving for intellectual enjoyment increasing with the means for its gratification, an honorable association with the highly-cultivated classes of society cannot be maintained without considerable mental effort. The struggle for eminence in any department of intellectual labor involves a concentration of mind on the special subject, which, if long protracted, is particularly calculated to induce disorder.

The tendency to such concentration, increased by habit, becoming in some individuals almost irresistible, proves seriously detrimental to the mental and bodily health.

Whether the continuous exertion of one faculty acts unfavorably by withdrawing the circulating fluid from other organs, and so dis-

turbing the healthy balance, or whether excessive action of a particular faculty exhausts some special material of the blood, is a question which cannot, perhaps, in the present state of our knowledge, be positively determined; but instances of morbid condition thus induced are continually presenting themselves to the physician.

Intellectual, like muscular action, probably involves an expenditure of living material, and introduces a changing series of particles — those which have been used giving place to others, which come with the energy of new life to perpetuate the action. There may be decay from stagnation — there may be waste from persistency, undue haste or intensity, especially in creative efforts. It is only when the function is performed in a calm and equable manner that the equilibrium of expenditure and supply is maintained, and that power is preserved and increased.

Not long since an account-keeper from a large public establishment, where he had been accustomed to work without intermission twelve hours daily, came to my consulting-room almost in tears, saying he was fit for nothing, feeling as though cut off from everything, and as if, when he attempted to fix his attention on any subject, some indescribable influence drew it away — a distressing sensation in the chest, and tingling of skin, as though the bed was full of fleas, often keeping him awake; and his sleep disturbed by frightful dreams. His height was 5 feet 5 inches; weight 129 lbs.; appetite good; tongue natural; bowels regular; urine slightly acid, of good color, its specific gravity 1025, containing a very few small oxalate of lime crystals, and scanty lithates. Pulse 88, not strong; skin moist. There was a strong continuous venous hum in both jugular veins, heard the more distinctly on checking respiration, but not overpowering the sound of the arterial pulse. When he cuts himself in shaving, the blood flows freely, and is with difficulty stanched. Under the microscope, a remarkably small number of pale-colored corpuscles in proportion to the red discs, was observable — a peculiarity which has repeatedly arrested my attention in cases associated with venous murmur, remarkably contrasting in this respect with the condition of blood ordinarily present in pulmonary consumption. Assuming that the relative proportion of pale corpuscles to the red is in phthisis one in ten, in healthy individuals one in fifty, the blood of patients belonging to the class under consideration has appeared to me to exhibit a proportion of about one in two hundred. I am inclined to suspect that this peculiarity is associated with deficient quantity of fibrin — a condition the reverse of that which usually obtains amongst consumptive individuals. But observations require to be extensively multiplied before we can safely venture in this matter to propound a rule.

Some of the evils briefly noticed in my preliminary remarks press with peculiar force on the clergy. Often beginning life with anxious competition for university honors, they pass at an early period of their career into responbsile duty, debarred by conventional rules from many innocent recreatious, subjected to unusual restraint of demeanor, restricted to intellectual pursuits which overtax particular

faculties, to the comparative neglect of others, and exposed in more than the average degree to the wear of sympathy, it is not surprising that the younger clergy, before their constitutions are consolidated, becomes so often the subjects of bodily infirmity, their nervous system unduly susceptible, and their minds too easily accessible to the delusions of pseudo-science and quackery.

A popular clergyman, of active sensitive mind, aged forty-three, but from his grey hair and general aspect likely to be considered fifty, had been, since he left the university, affected in a great degree with sleeplessness; often for weeks together not sleeping at night more than two hours. He could not refer this inaptitude for sleep to any physical cause. The alvine and renal evacuations were natural, and muscular strength good; but the pulse was rather weak; there was a marked murmur in the right jugular vein, and he complained of deficient intellectual power as respected the suggestion of ideas. I prescribed cod liver oil, and nitro-hydrochloric acid. The pulse improved, and in three weeks his average sleep was five hours a night. I then administered phosphate of iron, with phosphoric acid. In two or three months he recovered a fair degree of health, the venous murmur was scarcely audible, and the sleeplees nights and feeling of mental sterility occurred only occasionally after extra efforts of composition.

In the summer of 1855, after anxiety connected with schools, and claims on his sympathy in consequence of affliction among friends, a relapse occurred. I sent him to the country with injunctions to avoid as much as possible the society of civilized man. He at first gained little ground, being much engaged in discussion with intelligent acquaintances; but on removing to a more secluded spot to vegetate in the open air, his powers of sleep and composition returned.

The nature of ordinary cases of the kind referred to, may be illustrated by reference to those of an extreme character; a sudden shock to the nervous system, whether physical or mental, tending to induce conditions more severe in degree but analogous in nature to those resulting from the slighter, but more continuous series of shocks produced by the wear of anxious intellectual effort and disturbed sympathy.

A few years since, an express train on its way to meet the Queen, ran into another, and many of the passengers were injured. A lady, aged 33, had her head severely wounded, the scalp laid bare, one ear nearly cut off, the teeth knocked in; Mr. Bransby Cooper, who attended her, said she must have had an unparalled constitution not to have sunk. There was no great loss of blood, but she suffered for some time after the accident from hysterical cough, and inability, as she said, to swallow except by sips—became thin and pallid—the heart excessively irritable. These conditions, accompanied with a venous murmur, continued last year, and although materially benefited by the administration of zinc and cod-liver oil, they still continue in a considerable degree. The symptoms in this patient are not fairly referable to loss of blood. Her sister, who suffered from the same catastrophe, lost much more blood; but her

subsequent ailments, although presenting slight analogies, were much less severe, and not accompanied with venous murmur.

I would here present a case illustrative of the effects of brain-shock on the blood, which occurred in the practice of Sir Henry Marsh:—*

"A young and beautiful woman in the middle rank of life, highly but self-educated, of great mental endowment, of admirable taste, and strong sensibility and attachment, was unconsciously the one by whose hand a poisonous dose was administered to her sole surviving parent, to whom she was attached with all the fervor and devotedness of a daughter's love. The phial contained an ounce and a half of laudanum; it was given by mistake for a senna draught. When presented to him by his daughter, he tasted it, and said he did not like it, and would not take it. He had not been in good health; it was with much entreaty he was ever prevailed on to take the medicines prescribed. She urged him in terms the most affectionate and persuasive to take his draught; he replied, 'Dearest, you know I never can refuse you anything,' and swallowed it. Three hours passed away before she was aware of her terrible mistake. She was aroused to it by the state of stupor into which her father had fallen, when it flashed across her mind. She found the senna draught which she had intended to have given untouched; she also found the word 'poison' printed in large letters on the empty phial. The shock to her mind was terrific. She became like one insane. All possible means were employed to save the life of the poisoned man, but they were employed too late. He died profoundly comatose at the end of a few hours. From the moment of his last breath a change came over her. She was lost to all knowledge or notice of persons and occurrences around; she lay like a statue, pale and motionless. Food she never took, excepting when it was placed upon her tongue. The only sound which escaped her lips was a faint yes or no. When asked what ailed her, she would place her hand upon her heart. Her extremities were cold. She sighed and shivered frequently, and dosed brokenly and protractedly. To her, the world, and all things in it, were a blank. Tonics and stimulants were administered, air and scene were changed, kind and compassionate relatives and friends tried and tried in vain to rouse and console; she pined away, and nought but a breathing skeleton remained. She lingered on with very little variety or alteration of symptoms for ten months. Before her dissolution she became œdematous. The swelling, soft and transparent, was first perceived in the lower extremities, but gradually progressed upwards. It became apparent on the backs of the hands, along the arms, and ultimately it was universal. All the viscera, spinal, cerebral, thoracic, and abdominal, were patiently and minutely examined. No trace of organic change of structure could be detected. There was a copious effusion of thin transparent serum into every cavity — into every serous tissue. The pericardium was separated from the heart by an abundant effusion. The large amount of the dropsical effusion con-

* Dublin Quarterly Journal of Medicine, August 1st, 1853, p. 1.

trasted strangely with the extreme attenuation. In this case, to repress the increasing dropsy, ovipuncture had been several times practiced, always with relieving effect; even with this deduction, the viscera appeared as it were bathed in water. This poor patient, beaten down in mind and body, breathed her last without a moan or a painful struggle. The mental shock had paralyzed the vital actions, an evidence that, in real life, events do occur which transcend even the highest flights of fiction. An almost total suspension of nutrition, sanguification, and vascular energy characterized this case. The result was universal dropsy consisting in the thinnest serosity."

I have known an engraver, after working long and successfully on cathedral drawings, unable to sleep soundly on account of being haunted with architectural lines; but he went out for a walk among the mountains, recovered his capability of sleeping, and came back home "hard as nails."

Another engraver, (whom I attended,) anxiously and continuously engaged in the same department of work, in which he had greatly distinguished himself, became unable to recognize his own house.

A similar impairment of memory, accompanied as in the preceding instances with venous murmur, I have observed in some benevolent and conscientious individuals, inordinately engaged in carrying out some scheme of philanthropy;—in others associated with mental depression, taking the direction of some unsound or narrow religious dogma; and in professional men, worn with the stir and anxiety of life. In all such instances, measures calculated to enrich the blood have proved an important auxiliary to those which have respected mere change of scene and occupation.

The instances specially present to my mind in making this communication are not remarkable for any impairment of digestive function, and the attendant impoverishment of blood seems to be a result of nervous exhaustion. The somewhat pallid cheeks, the languid eye, the venous murmur, are in harmony with the intellectual manifestations, — in some sleeplessness, — inertness. The original writer complaining of a peculiar sterility of mind, and the close reasoner becoming fragmentary and unconnected in his trains of thought.

In all the conditions referred to there is a general analogy, but the special manifestations vary with the temperament of the individual patient. In the active and sanguine, for example, sleeplessness is common, and a more than ordinary readiness to adopt any fashionable heresy in pseudo-science or theology. In persons of a more phlegmatic disposition there is induced great indisposition for exertion, a gloomy view of events, and perhaps a desponding estimate of their religious condition. When, as usually happens, duodenal indigestion is superadded, habitual depression of spirits is common, and oxalate of lime crystals may often be detected in the urine.

The amount of labor which different individuals can bear without such injury as we have described, varies. Indeed, the mere amount is only a part of the explanation—*anxiety*, *hurry*, and *exclusiveness* of

work being more injurious than quantity. Work which is successful, varied and pursued without hurry, although carried to a considerable extent, may be not only innocuous, but useful and even necessary. Indeed, without some degree of intellectual exercise, the body itself would languish. But there is a limit with every individual which cannot be safely passed; and it is the part of the wise man to watch, with a view to counteraction, the earliest indications of exhausting effort.

As respects treatment those measures are most salutary which tend to enrich the blood. Chalybeates are sometimes useful; but in many instances they tend to increase irritability, and cannot, at least at the commencement, be safely employed. A course of cod-liver oil is seldom inappropriate, and this remedy may often be advantageously administered in combination with nitro-hydrochloric acid, especially when the appetite is defective, or the oxalic acid diathesis present. To the subject of the importance of the remedial administration of oils, I am anxious to invite particular attention. About eighty years since, cod-liver oil was largely employed at Manchester in the treatment of rheumatism, but was, after a time, superseded by other more agreeable medicines. The mode of action of the remedy was not then ascertained, and its proper place as a medical agent was not determined. During the last twelve years the value of this medicine in the treatment of consumption has been established. With the aid of the medical press, observations on its effects by different practitioners have been extended and compared, and we have found reason to conclude that its efficacy in consumption depends not upon any specific adaptation to that particular disease, but on qualities which renders it of equal or superior service in other disorders presenting points of resemblance as respects some peculiar conditions of the blood, which the administration of the remedy is specially calculated to correct.*

Change of occupation and scene is of paramount importance. When the condition is not one of extreme exhaustion, an energetic tour is desirable; in the more advanced cases, the disinclination for such an effort being extreme, or the excitability great, such a measure must not be abruptly commenced; perfect repose for a time may then be expedient, and habits of activity gradually adopted. When intellectual work is resumed, many precautions should be observed, The times, amount and method should be regulated, and probably even the posture in which mental processes are carried on. Analysis being with many students best effected in the recumbent posture, and composition while walking. The importance of exercise in the open air can scarcely be over-estimated. Indeed, although instances of the class described in this communication occur not unfrequently in persons careful to observe ordinary hygienic precautions, yet there are others in whom an amount of nervous irritability, associated with the other symptoms, may be mainly attributed to a neglect of muscular exercise, the special remedy for nervous excitability.

**Vide* "Clinical Lectures on Pulmonary Consumption." By Theophilus Thompson, M.D., F. R. S. London. 1854. pp. 67–85.

I have for various reasons expatiated on the class of cases associated with venous murmur, and other signs of anæmia or spanæmia —1st. Because they seem to me to indicate an order of succession in the phenomena not generally recognized, pointing to the conclusion that the brain may sometimes impoverish the blood, before the condition of the other organs disturbs the brain. 2ndly. Because such instances of cerebral exhaustion are those most amenable to treatment. 3dly. Because the probable hereditary transmissibility of such conditions makes them of incalculable importance to the community.

It is a common remark, that the type of disease, at different periods, varies. In tracing some past eras of disease, (speaking in general terms,) we may conclude that the plethoric condition, prevalent in the 17th century, gave place in the 18th to gastric congestion. This condition has now ceased to predominate, and we have perhaps entered on an anæmic era—a state peculiarly unfavorable to the manifestation of power and to the production of great men.

For all classes, but especially for the professional, a prudent regard should be had to the probable production and ready aggravation of the anæmic condition from causes associated with the laws of mind. A different training, physical and intellectual, must be adopted by our clergy, if they are to be kept in the foreground of the domain of thought, and to be suffered to direct those energies of social life which it is our part as medical men, to cherish.

As respects the application of medical theories, a wider range of thought should be pursued. The modifications of many prevalent diseases may have reference as much to mental states as to hygienic conditions of atmosphere and diet. Every remediable infirmity is a violation of the law of progress. If medicine is to render to the community a full amount of good, it must be not simply in treating the maladies of individual patients, but in ministering to the conditions which disturb the vitality of the race, and thus, whilst improving our appliances for daily work, remembering that we are enlisted in the service of mankind, we may make posterity our debtors.—*Psyological Journal.*

ART. IV. *Outline of a Hygienic Code for the Treatment of Consumption.* By BENJAMIN W. RICHARDSON, M. D. Physician to the Royal Infirmary for Diseases of the Chest.

In giving the following rules, Dr. Richardson presupposes their general applicability to cases of consumption in all stages of the disease: in the premonitory stage; in the stage where the tubercular deposition is apparent; and in the next stage, when the local mischief is much further advanced. In the last stage even, though hope is lost, many of the rules may still be rigidly followed out with advantage, for by them the course of the disease may be smoothed, and life, perhaps, prolonged.

The rules are ten in number.

RULE I.—*A supply of pure air for respiration is the first indication in the treatment of the consumptive patient:*

No cozy room with a temperature at 70 deg., with every crevice closed, and with an atmosphere in a dead calm and laden with impurities, should be permitted. A temperature from 55° to 65° Fahr. is high enough. The fire, if one be wanted, should be in an open grate, and every arrangement should be made by which the freest possible current of air should be kept circulating through the room. If the patient is cold, he must go near the fire, and, if necessary, poke it, but he must on no account make the room warm by making it close. Dr. Richardson objects very strongly to stoves of all kinds, to heated pipes, and to every other mode of supplying warmth, except an open fire, as by these means the air is made too dry.

Free ventilation is especially necessary where gas is used. The bed room should be large—including, if practicable, not less than 1,000 cubic feet of breathing space; and, to prevent any unnecessary contamination of the air, no second person should sleep in the same room, and no light, particularly gas, should be burnt through the night. Two persons in one bed, according to Dr. Richardson, are out of the question under any circumstances. The inclemencies of the weather are not so much to be dreaded as confinement to the house. "I had occasion, some time since, says the author, repeatedly to remark that if, from a few days' rain, the consumptives under my care were confined to their houses, instead of being able to take the daily out-door breathing always prescribed, the aggravation of symptons was always marked and universal. The appetite fell off, the debility became greater, the mind was less buoyant, the local mischief increased." Better go out with respirators and mufflers, under ordinary circumstances, than stay in. A muffler, which a patient may make for a few pence, being as good as an expensive respirator. This is made out of a piece of fine wire gauze, cut oval, so as to cover the mouth and nose, and fixed in the centre of a handkerchief, so that it may be tied on like an ordinary comforter, with the guaze in the centre, for breathing through.

RULE II.—*Active exercise is an essential element in the treatment of consumption:*

Next to a free exposure to air, Dr. Richardson agrees with Drs. Rush, Jackson and Parrish, in thinking that vigorous exercise is by far the most efficient remedy in the treatment of consumption.—"Walking (he says) is the true natural exercise, and the best, for it brings into movement every part of the body more or less, and, leading to brisker circulation in every part, causes a more active nutrition generally. The extent to which exercise should be carried will vary with the stage of the disease, and temporary accidents may for the moment stop it altogether, such, for instance, as an attack of hæmoptysis. But when exercise is advisable, the general rule is to recommend that it be carried out systematically, cautiously, and

courageously, and that each exercise should be continued until a gentle feeling of fatigue is felt through the whole muscular system. Violent and unequal exertion of the upper muscles of the body is unadvisable. When restored from the fatigue of one exertion, another should be undertaken, and during the day this cannot be too often repeated. If the day be wet, then the exercise should be effected by walking in a large room, or by engaging in some game, such as skittles, billiards, or tennis.

"In summer time, when the temperature of the day is high, the morning and the evening time are the best adapted for the periods of out-door exertion. In the other seasons, mid-day is preferable, as a general rule.

"The value of exercise is three fold. First, it checks waste of muscular structures, for muscles left inactive undergo a consumption, without any necessity for lung disorder. Secondly, it diverts the blood from the lungs, causes a more brisk circulation through them, and a more free distribution through the system at large.—Thirdly, it induces a more free respiration; more oxygen is taken into the lungs, the body is restored to its vital purposes more surely, and, just in proportion as this restoration is effected, so is the restoration of disordered function and of disorganized tissue.

"In the performance of muscular exercise let the consumptive never encumber himself, or check the free movements of his body by strappings, loads of clothes, or carrying of weights, and the like. These are but tasks; they lead to unequal exertion in special sets of muscles, and such inequality of expenditure is that which is to be avoided. The treatment of consumption in an hospital is objectionable, again, in regard to exercise. Of what use to the consumptive is an acre or two of airing-ground confined at the back of his hospital? Let him be certain that where the gardener cannot make roses bloom, and peach-trees blossom, no doctor can give to the anæmic cheek a permanent color, to a lost function its uses, or to an impoverished body its once healthy power."

Rule III —*A uniform climate is an important element in the treatment of consumptives:*

No particular place is recommended for consumptives, but here is the formula for an hypothecal consumptive Atalantis. "It should be near the sea coast, and sheltered from northerly winds; the soil should be dry; the drinking water pure; the mean temperature about 60 deg., with a range of not more than ten or fifteen degrees on either side. It is not easy to fix any degree of humidity; but extremes of dryness or of moisture are alike injurious. It is of importance in selecting a locality that the scenery should be enticing, so that the patient may be more encouraged to spend his time out of doors in walking or riding exercise, and a town where the residences are isolated and scattered about, and where drainage and cleanliness are attended to, is much preferable to one where the houses are closely packed, however small its population may be."

RULE IV.—*The dress of the consumptive patient should be adapted to equalize the temperature of the body.*

RULE V.—*The hours of rest of the consumptive patient should extend from sunset to sunrise:*

This rule, in Dr. Richardson's opinion, is imperative for many reasons. "First, because in all seasons the actual amount of rest required by the natural man is pointed out with the precision of an astronomical law by the course of the sun. In midwinter men require, for physiological reasons, more sleep than they do at midsummer, and just so much more as is indicated by the difference of night in these two periods. Observe how all animals, left to their own natural instincts, obey this law. Secondly, in our present artificial mode of life, we have to extend the day by the invention of artificial lights. But whenever a man shuts himself up in his closet, and makes a little sun out of his gas lamp or candle, he is feeding that lamp with a part of his own breathing store—the air around him. Worse still, the candle can, no more than the man, live alight without exhaling carbonic acid gas, and thus vitiating the atmosphere. A pound of oil burnt in a lamp produces, in burning, nearly three pounds; and every cubic foot of coal gas, rather more than a cubic foot of carbonic acid. The evil effects of carbonic acid on the lungs have been already described. Thirdly, as an artificial light is, by the mode in which it is produced, of necessity injurious, so, on the contrary, the pure sunlight is of the greatest worth in the acts of vitality. What sunlight does in a physiological way is undetermined; but its general influence has long been known and recognized. Plants banked up from the light become blanched, and human beings kept for a long time in dark abodes become the victims of anæmia and scrofula."

RULE VI.—*The occupation of the consumptive patient should be suspended if it is in-door or sedentary; but a certain amount of out-door occupation may be advantageous:*

Among other remarks which naturally arise when speaking upon a rule such as this, is one which deserves considerable attention. It is this: "In the case of parents having children of a consumptive tendency, therefore, the greatest care should be taken to obtain for them out-door employment. But here a serious delusion comes into play. If the child is weakly, the fond parent urges, that it is unfit for hard labor and for out-door vicissitudes; so it is sent to a tailor or shoemaker, to a clerk's office, a draper's shop, or to some occupation of an in-door character; by this grand, ignorant and fatal mistake, it is added to the list of the two-thirds who swell the tables of consumption cases."

RULE VII.—*Cleanliness of body is a special point in the treatment of consumption.*

Rule viii.—*Marriage of consumptive females for the sake of arresting the course of the disease by pregnancy is morally wrong, and physically mischievous.*

Rule ix.—*The diet of consumptive patients should be ample, and should contain a larger proportion of the respiratory elements of food than is required in health.*

Rule x.—*The medicinal treatment of consumption should in the main be of the tonic class:*

There is no doubt, as Dr. Richardson says, that the public expect to be cured by pills and plasters, and not by a series of instructions tending to bring men into obedience with the laws of nature, and therefore much credit is due to him for constructing this sanitary decalogue, even though subsequent enquiry may lead him to modify some of its articles.—*Journal Public Health.*

Art. V. *Moral Insanity*—Huntington.

The financial achievements of Huntington in the city of New York, his subsequent trial and conviction for forgery, recently so exercised the excitable metropolitans, that but for the opportune slaying of an unfortunate doctor, under mysterious circumstances, which furnished a new pabulum for their excitability, and sent their perturbed and hurried spirits in a different direction, all Gotham, with no inconsiderable show of reason, might have been called to the bar of the entire public to answer the charge of moral insanity. They are now mad as a March hare in the murder case, and Huntington is forgotten. The types employed in converting him into a hero, leaped from their forms, and are now engaged in contributing to the storm of a new mania.

The memoirs of Huntington commence in the stereotyped fashion, as "born of poor but respectable parents," it being always taken for granted that wealth, however acquired, insures respectability. We are informed that his ancestors, both direct and collateral, had generally enjoyed good health, but that some of them went mad in old age, etc., etc.

Huntington, it is stated, took to lying when quite an infant—indeed, was a distinguished liar from his earliest years. His father flogged him severely for this little vice, and young Huntington abated it so far as to devote a portion of his time to stealing. Flogging was again in requisition, but when our young hero had attained his 16th year, he was given over as incorrigible. His father was a dealer in furniture; and when the son was about 27 years of age, we find him in New York with a furniture establishment, upon which he contrives to get credit for ten times its amount, and blew up, which seems to have been his first effort of indirect stealing. Like most of men who get money by their wits rather than honest indus-

try, Huntington was remarkably liberal. When the proceeds of one swindle were exhausted, he quickly contrived another. The friends that his liberality from one swindle would secure, he never hesitated to involve in ruin, by using them in the construction of his next swindle. Thus was a most consummate scoundrel enabled luxuriously to riot and fatten upon the infamous proceeds of his stealings through a series of years. The earnings of all the widows and orphans in New York could not have supplied him in wine, segars, fast women and fast horses. Finding the world so easily swindled, he took position in Wall street, and systematized a regular plan of forgery, which for extent and success is without a parallel in the annals of villany. Being at last discovered, he was arrested and thrown into prison. Upon his trial his counsel risked his defense upon the plea of "moral insanity," and the attempt to establish this, by high medical testimony, has given the whole subject a medico-legal interest, and made it the duty of the medical journalist to discuss it.

Chandler R. Gilman, M. D., professor of medical jurisprudence in the college of physicians and surgeons in the city of New York, and Professor Williard Parker, are the principal witnesses. They both testify to his moral insanity.

Dr. Parker states his belief that Huntington was of unsound mind, or morally insane, and bases his opinion:

First, on the hereditary taint.

Secondly, on the history of his actions from his school days to manhood, and from manhood on to 1855.

Thirdly, on his want of sagacity and self-protection in his financial operations—his utter inconsistency in all his actions, his destructiveness and recklessness in his transactions, his supreme folly in the management of his own household; as, for instance, his wife being unwell, he lighted his house and filled it with bands of music, at intervals for weeks, it being his object, he said, to soothe Mrs. H.'s nerves, that she might be able to go to Rockaway.

The Doctor stated further that there was nothing in his appearance or deportment that indicated the malevolent villain or the knave. He seemed a man of very moderate intellect, and as if he would serve for the tool in vice, rather than for the projector of schemes and plans.

The facts in proof in the case clearly establish, in my (Dr. P.'s) opinion:

First, extreme carelessness, profusion and wastefulness in the spending of money; he bought horses, carriages, plate, &c., &c., without the slightest reference to cost, and entirely beyond any reasonable view of his wants.

Secondly, utter improvidence, both as to the preservation of his property and as to his personal safety: he took, so far as appears, no measures to secure or lay by any thing of his ill-gotten gains, as a provision for the future.

Dr. Gilman gives similar testimony. The plea of insanity, however, was not sustained, and Huntington was sent to the peniten

tiary. Since the trial, Dr. Gilman has issued a pamphlet of 24 pages, entitled "A Medico Legal Examination of the Case of Charles B. Huntington—with remarks on Moral Insanity." In this tract the case of Huntington is given, followed by twenty-three cases of moral insanity. We take it for granted that these cases are given for two reasons:

First, to show that there is such a disease as moral insanity.

Secondly, to prove that the facts connected with the history of Huntington go to prove that he also was a subject of this infirmity. In a word, that the twenty-three cases are given to prove that Huntington's might be justly regarded as the twenty-fourth.

We propose hurriedly to examine the claims of this conclusion to soundness, and alone by the light furnished us by Dr. Gilman. To do this in all fairness, it is proper that we quote the conversation which Professors Gilman and Parker had with the accused in his cell.

Dr. Parker visited Huntington at the Tombs, as he testifies, in order to form an opinion as to the soundness of his mind. He states he had two interviews with him, which occupied an hour; that he was not introduced to him as a physician; that he found him quiet, and without any apparent appreciation of his situation. Physically, he was delicate; perhaps feeble. He seemed to be a man who was mild and inoffensive in character, without much intellect. The doctor conversed with him freely concerning his crimes, and the infamy they would bring on his family and friends. He appealed to him concerning his children, with a view to create some emotion, but he was entirely unimpressible. No emotion could be excited. Huntington stated that he should commit the same crimes again, because "he could not help it." If the desire came upon him, he must and should yield to it.

Dr. P. then examined into the state of his health, and learned he had suffered much from constipation and hemorrhoids for many years; that a year or two before, he had had the Panama fever; that for years he had had noises in his head, as if from machinery; that he suffered much from sparks before his eyes; that for several years he could not sleep well—rarely more than three or four hours in twenty-four. When asked if he had troublesome dreams, or if his business disturbed him, he replied, "not at all."

Huntington stated he had forged twice before; that it was discovered, and he was let off because it was believed he intended to do no harm. When he went to San Francisco, he left spurious paper, which "he had made," unprotected.

He said he had never gambled; that he had not been dissolute with the women, although such had been his reputation. He did not care for money, and had made no provision for the future.

Huntington was also seen by the writer of this tract on two occasions. At the first, one of his connsel was present; at the second, the prisoner was seen alone. During these interviews the conversation turned on his forgeries and on their consequences to those he had defrauded, to his family and to himself. Upon all these sub-

jects he spoke with the utmost freedom, confessed that he had forged repeatedly, and to enormous amounts, that many had lost or would lose by him, that some of these persons had been involved solely by their desire to assist and befriend him, &c., &c. All this was told with a calm, smiling manner, the details being from time to time interrupted by trifling compliments, inquiries about the news, comments on the weather, and other idle talk. When his attention was strongly directed to the dangers of his situation, his probable conviction, the prospect that in a few months, perhaps weeks, he would be in the state prison, his replies were in substance, "Oh, no! it is impossible! no twelve men can be found who will convict me." But why? "Oh, I never intended to injure anybody." But you have injured many persons. "True, but I did not intend to do any thing wrong." Nay, you know that forgery is a crime. "Oh, yes, but I never intended to injure any one." To disturb, if possible, this impassive state, allusion was made to the distress of his wife and the heritage of shame he would transmit to his children. His replies were in the same smiling, good natured, yet indifferent tone. He was sorry, but it would all come right—all blow over.

While talking on these subjects, the least trifle would divert, and, for the time, engross his attention; from the grief of his wife, the shame of his children, and his own utter ruin, he would turn without the slightest effort to the spots on his dress, the quality of his segars, or any other trifling matter.

Such was the condition of Huntington, and such in part his previous history. On these facts the medical witnesses were required to give their opinions as to his sanity. They both stated that he was insane, or, in other words, that the disease of the brain had impaired both his intellectual and moral nature. Dr. Gilman expressly stating that he had that combination of intellectual with moral insanity which so frequently exists.

We now turn to the cases selected by Dr. Gilman:

Case 1.—A subject of epilepsy, from 8th to 25th year. * * The first moment he is sensible of the approach of his evil hour, he begs to be tied—to be loaded with chains—lest he should commit some frightful crime. "When it seizes me," said he, "I feel that I must kill, must strangle some one, if only a child." His mother, to whom he is fondly attached, would have been his first victim. "Mother," he would shout in a frightful voice, "mother, save yourself, or I shall strangle you." During the attack he has his senses perfectly. Knows that in killing any one, he would be guilty of an atrocious crime. The attack lasts one or two days. When it is over, he immediately cries out, "unbind me—alas, I have suffered terribly, but still I am happy that I have killed no one.*"

Here the patient wanted blood, not money. Huntington eschewed blood, but thirsted for money, and laid his plans with such skill as to be always crowned with success, up to the time he was "tied," without begging for that particular favor. He never, like case the

* Esquirol, in Hoffbauer, p. 347.

first, shouted to any one whom he beggared, "save yourself, or I will swindle you!"

Case II.—A patient of Mr. Daniel, laboring under disordered liver, without any sign of intellectual aberration, was found by Mr. D. in a state of great excitement. He confessed that while talking with his wife and family, his eye caught the sight of a poker, and he felt a desire to shed blood, which he feared he could not control. He shut his eyes and tried to think of something else, but in vain; when he could bear it no longer, he ordered them with a voice of thunder to leave the room. Had they opposed him, he felt that he should have murdered them all.

This, like case first, wanted blood, not money.

Case III.—A nurse in the family of Baron Humboldt met her mistress returning home, and, in the greatest apparent excitement of mind, and falling upon her knees, besought permission to leave her service, and to be sent out of the house. On asking the reason of this most extraordinary request, Madame H. was informed that whenever this wretched being undressed the infant of which she had charge, she was, on observing the whiteness of the skin, struck with an instinctive desire to cut it open. Fearing that she might not be always able to resist this terrible propensity, she desired to be discharged. This girl had always given entire satisfaction to her employers, and her sanity had never been called in question. She had amenorrhœa.

Again wanted blood, and like the others, struggled against the temptation. Huntington panted for money, and traveled in advance of temptation.

Case IV.—A servant girl, aged 17, had never manifested any mental disorder; but from her fourth year she had been subject to spasms, which finally degenerated into epileptic fits, which were unusually violent whenever they coincided with the menstrual period. She was guilty of two incendiary acts—a very severe fit occurring previous to the second. The faculty of Leipsic, who were consulted respecting the case, reported that, in consideration of the physical state of the accused, they did not consider it probable that at the period when she committed the incendiary act, she enjoyed the free use of her mental faculties.

Was destructive, but gave no evidence of a desire to enjoy the earnings of others.

Case.—* * * After innumerable acts of malignity and cruelty, she was at length committed to an asylum. There, in reply to interrogatories, she gives the following account of herself: "I never amused myself like other children. I had a fantastical and capricious temper, generally preferred seeing evil done rather than good. I took pleasure in nothing. I have never been regular. The physicians bled and leeched me for this, but it did no good. Six months ago I had severe illness (typhoid fever.) Since then I sleep

little—the blood rushes to my head, and the desire of doing evil takes possession of me. I arise at night and go to torment my sister. Once I bit her very badly. Once I told her to bring me an axe to split wood; when she brought it, I tried to split her head open. I have a great appetite; am never able to satisfy it. If I had killed my sister, it would not have worried me at all. I only think of evil. I dream of shedding blood—I could drink it," &c., &c. In the hospital she was the terror of her ward; made many attempts to bite, injure or slay the patients; yet she deplores her condition.

Did not desire the enjoyment of spending other people's money in riotous living.

After this case Dr. Gilman adds, that, "It would be easy to multiply cases of this kind—the books are full of them; but it is unnecessary." We had arrived at the same conclusion, for they in no wise illustrate the case of Huntington, and might as aptly have been quoted to illustrate the "depravity of man," "predestination," or any other theological dogma. Dr. Gilman, indeed, after his fifth case, seems to have a sort of intuitive consciousness that his authorities were availing him little if any, if indeed they were not making head against the conclusion to which he was driving.

But it must not be denied that these cases are justly to be considered cases of real insanity, and, should any one doubt the existence of such a malady, (not a probable contingency,) might be aptly quoted in confirmation. "We are next," says Dr. Gilman, "to prove that this moral condition is to be removed by medical treatment, or, in other words, that it is, like any other disease, cured by treatment." Now follow eighteen cases, going to show that insanity is not always an incurable malady. We have examined them all, not to see how madness was cured by treatment, but with a view of ascertaining whether or not Dr. Gilman, in his research, had been so fortunate as to find a case similar to that of Huntington, which had been cured by treatment—we mean medical, not legal treatment, for we intend ourself to add one, analogous to Huntington's, cured by legal treatment, and the memory of our readers will supply them with similar cases not recorded in the books.

Case vi.—But first going to show the curability of insanity. A girl from 14 to 17 years of age, subject to paroxysms of insanity. Had never menstruated. * * She made some attempts at suicide, and once threw herself on her mother, armed with a knife, evidently eager to shed her blood. When the paroxysm was at its height, blood would flow from the mouth, nose, or even the eyes; then followed tears, a general trembling, coldness of the extremities, cramp-like pains in the limbs, poignant regrets, followed by a long period of depression. This state continued many hours. Sometimes in her paroxysms she would roll on the ground, beat her head against the walls or the furniture, or strike herself with her fists. Her countenance, habitually very mild, became hideous; her face, ears and neck were deep red; her head burning hot; the feet cold. The

paroxysm over, she became mild, begged pardon of her mother, whom she overwhelmed with marks of tenderness. When remonstrated with, she wept and said, "Why was I made as I am? Would that I were dead — wretch that I am. I cannot control myself when I am in my rage. I see nothing, and know not what I do."

She often did not remember circumstances that occurred during the paroxyism, and denied with surprise and regret what was told her. At seventeen, her courses appeared. Soon there remained not the slightest trace of the evil propensities by which she had been so long tormented. She never had any appearance of intellectual aberration.

She wanted blood.

Case VII.— * * * More than once, a few minutes after having embraced his mother, his face would flush, his eyes sparkle, and he would scream out, "Mother, save yourself— I shall kill you." Soon after, he would become calm, and shed tears. One day he met a Swiss soldier, to whom he was unknown. He sprang on him and tried by force to seize his sabre to attack him with it.

Case VIII.— Tempted to kill her two little daughters.
Wanted blood.

Case IX.— Seized a hatchet and attacked his wife with great fury.
Wanted blood.

Case X.— Son of a barber, strangled his two brothers, and fled from home.
Wanted blood.

Case XI.— Took a great fancy to a neighbor's child — made it presents of toys, &c. One day he threw it in the river.
Wanted blood.

Case XII.— A patient in Bethlem hospital. An irresistible propensity to tear her bed clothes. Said she wouldn't do it if she were not afflicted. This is so common an employment of maniacs as to excite no remark of their attendants.

Case XIII.— Fired York Minster. Knew it was a felony, but wanted to be hanged.
Wanted his own blood.

Case XIV.— Fired at King George III. Did not want to hurt the king, but knew an attempt upon his life was a felony, and he did it that he might be executed.
Wanted his own blood.

Case XV.— Shot Mr. Drummond, mistaking him for Sir Robert Peel, insanely intending to avenge some imaginary injury.
Desired vengeance.

Case XVI.— Walked into a shooting gallery and shot the proprietor. Had nothing against him, but wanted to be executed.
Desired his own blood.

Case XVII.— Cut the throat of a baby she was nursing.
Desired blood.

Case xviii.— Cut the throat of a little niece, for whom she had always expressed especial fondness.

Wanted blood.

Case xix.— A case of homicide — blood.

It is just to Dr. Gilman to say that in many of these cases his object was to establish the error of the court in the case of Huntington, that a knowledge upon the part of the accused that his conduct was criminal, should be regarded as a test of his legal accountability. This decision was erroneous, and Dr. Gilman has very satisfactorily shown it by the opposite decisions in the above cases — by Chief Justice Tisdale, Lord Denman and Mr. Justice Williams. As this silly test obtained in Huntington's case, Dr. Gilman very rationally meets it, and completely overturns it by the cases which he cites. We desire to show, however, that all the cases cited by Dr. Gilman, no matter for what purpose, are genuine cases of insanity, and essentially unlike the case of Huntington. It is the object of Dr. Gilman, not only to show that Huntington was insane, and therefore wrongfully punished, but to prove, first, that there is such a disease as moral insanity; secondly, that it is curable by medical treatment; thirdly, that the test established by the triers of Huntington has very often resulted in judicial murders. The remaining cases given by Dr. G. were decided under this test, and are clearly cases of legalized murder, the sufferers being morally, and therefore legally, unaccontable. Let us be understood. The points above, Dr. Gilman has clearly sustained, but he has utterly failed to establish Huntington's case as one of moral insanity. Had the triers of Huntington, therefore, not adopted this erroneous test, or flatly set aside the medical testimony, Huntington would have been turned loose upon society, to renew his depredations upon it. This was not even to be thought of by practical men. It was as necessary to lop him off society as to amputate a mortified limb.

It might be argued by the sickly sentimentalist and pseudo-philanthropist, that he might have been shut up in an asylum and "cured by treatment," but surely the common sense of mankind would regard such a case as "past all surgery."

We regret exceedingly that men so eminent as Professors Gilman and Parker believed as they did in this case. Their testimony will fearfully increase the number of judicial murders. Judges and lawyers, slow to believe what it is so difficult for a nonmedical man to understand, even the existence of moral insanity, can hereafter overpower, brow-beat and abash an ordinary physician, struggling to save a poor maniac from the gallows. We think we can see the scowl of contempt with which the court will hear the term "moral insanity" issuing from the modest lips of the conscientious medical witness, and see the brazen-faced attorney, as he details to the jury with provoking minuatiæ the long list of Huntington's villianies. How he swept down Broadway in his magnificent curricle and spanking bays, followed by his fast woman in a separate vehicle, "two in hand." The splendor of his lighted halls, the wine, the

elegancies, the luxury, the gaiety, that band of music to soothe the delicate nerves of his elegant wife, who, sparkling in diamonds, lay panting for new excitements amid the numerous throng of her attendants. How all this was wrung from the honest industry of the "people," the "hard-fisted yeomanry of the country," and that the great medical luminaries of the land, with their hair-splitting theories excogitated in their gloomy closets, to establish the difference between tweedle-dum and tweedle-dee, had pronounced that a case to be treated with physic—that he should have pills and potions rather than a shaved head and striped breeches, and, finally to attain the climax of his vulgar peroration in the expressive "Bah!" What jury could resist it?

Dr. Gilman has succeeded in making all the points in the case, save that for which all the rest were made—the insanity of Huntington. In making those, this, for the establishment of which they were undertaken, he has clearly demonstrated to possess nothing in common with them, but on the contrary, a case alone—isolated—a central stench, with nothing in sympathy but the surroundings of a kindred scoundrelism.

The case of successful legal treatment which we promised to add, is recorded by Nathan Smith. It is of a young man who had suffered from typhoid fever. Though moral and upright before, the disease had so changed his moral faculty that he subsequently took to stealing; not hesitating to steal from a young acquaintance who had kindly nursed him through his sickness. Finally he was severely punished, when he recovered from his malady.

Huntington, we are informed, suffered from piles. It is possible that this fact, in accordance with Dean Swift's theory of madness, had its influence in determining the conclusion of his medical examiners, and we quote a case in point from that celebrated author:—

"The other instance is, what I have read some where in a very ancient author of a mighty king, who, for the space of above thirty years, amused himself to take and lose towns; beat armies, and be beaten; drive princes out of their dominions; frighten children from their bread and butter; burn, lay waste, plunder, dragoon, massacre subject and stranger, friend and foe, male and female. It is recorded that the philosophers of each country were in grave dispute upon causes natural, moral and political, to find out where they should assign an original solution of this phenomenon. At last the vapor or spirit which animated the hero's brain, being in perpetual circulation, seized upon that region of the human body, so renowned for furnishing the zibeta occidentalis,* and gathering there into a tumor, left the rest of the world for that time in peace. Of such mighty consequences it is, where those exhalations fix; and

* Paracelus, who was so famous for chemistry, tried an experiment upon human excrement to make perfume of it; which when he had brought to perfection, he called zibeta occidentalist, or western civet, the back parts of man (according to its division mentioned by the author, p. 95) being the west.

of so little, from whence they proceed. The same spirits which, in their superior progress, would conquer a kingdom, descending upon the anus, conclude in a fistula."—*Nashville Journal of Medicine.*

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Lectures on the Principles and Methods of Medical Observation and research, for the use of advanced students and junior practitioners. By THOMAS LACOCK, M. D., T. R. S. E., T. R. C. P., Professor of the Practice of Medicine and of Clinical Medicine in the University of Edinburgh, &c., &c., Philadelphia: Blanchard & Lea, 1857, pp. 204. (For sale by Riley & Co.)

This is a neat little volume, which, like Holland's "Notes and Reflections," is designed to teach the right use of reason in medical research. The "*Notes and Reflections,*" emanate from London—this from Edinburgh. The two taken together, therefore, may be regarded as presenting the views of the English and Scotch on the movements of the mind best calculated to avoid sophistry.

In most countries, more attention has been paid to the effort to accumulate knowledge, than to the one, equally important, of separating the wheat from the chaff. Incident, indeed, to an exercise of the process of gathering truth, is the tendency to error. The propriety, therefore, of attempting to guard well those who are about to enter the sphere of Practical Medicine, with reference to such unavoidable contingency, cannot easily be over-estimated. In almost all kinds of research, mistakes, errors, &c., involve consequences very far short of what is found to be true in medicine. An appreciation of this very important truth has awakened in the minds of those who have pioneered the different departments of medical science, some sense of the propriety of suggesting caution. This feeling, near half a century since, induced Sir Gilbert Blane to publish a volume on "Medical Logic." Lately (1851) the Sydenham

Society printed a translation, by Dr. Whitley, of Oesterlen's "Medical Logic." Neither of these works have had the currency they deserved. The latter one is very elaborate, and, perhaps, useful as a book of reference, rather than as a text book for junior practitioners.

The work before us is made up of seven lectures, delivered in the summer of 1856, in the University of Edinburgh. The following are the heads of the Lectures:

1. General principles of Observation and Inquiry.
2. General Method and Objects of Clinical study.
3. Methods of Clinical Examination.
4. On Prognosis, and on the order of succession of Morbid Phenomena.
5. On the due estimate of treatment, or on the management of the case.
6. The Numerical Method of Research in Medicine.
7. The Analogical, Philosophical, or purely Inductive Method of Research.

We see much in looking over these lectures that might be transferred to our pages; and in which the reader, whose ambition it is to make himself familliar with whatever is calculated to advance his knowledge, would feel a deep interest.

There is what is called a practice founded entirely on "*Experience.*" We have our empirical diagnosis, empirical therapeutics, empirical prognosis and etiology. This first and rudest method is that with which the fathers operated, and that upon which we, at the present day, have, in a measure, still to depend. The Aphorisms of Hippocrates were mostly founded exclusively on this, the empirical method; and it is a singular fact, that the large *numerical* returns, with all the advantages of modern science, only demonstrate the truth of some of these aphorisms; still, as all know, there is so much liability to fallacy in obtaining knowledge by *experience*, that it is the part of prudence to invoke other aids. Hear the author on the comparative merits of experience:

"These statements sufficiently prove the uses and even value of unenlightened simple experience in medical art; but do they prove its excellence? No. Such experience is the most common thing in the world. Every man with opportunities for observing, and a mind for estimating, the relations of the phenomena that come under his daily cognizance, acquires each, in his profession or business, the same kind of tact. The Indian warrior on the trail of his enemy

has not more acute tact in observing and concluding, than the detective police officer in quest of his object of pursuit—the forger or murderer. The common seaman or unlettered shepherd will anticipate far more readily than the experienced statesman the coming changes in the weather; but the statesman has equal tact in his vocation. After a long life spent in the public service, at an age

When old experience doth attain
To something like prophetic strain—

he can anticipate the course of events, and foresee the political storm; and, if vigor of mind be left to him, can guide warily and well the helm of government. Such a statesman was the late Sir Robert Peel—the physician of the sick commonwealth.

"Now, experience has its principles as well as philosophy; for experience *is* philosophy—the philosophy of common sense; and it is well that you should know that these principles are nothing more than the aphorisms, proverbs, maxims, and wise sayings, current in the world. These are the pith and essence of multitudinous experience, professional, moral, domestic, or national, as well as physiological and pathological. In a word, they constitute empirical knowledge. The proverb, to mention a solitary instance, of "Conceit (or the fancy, imagination) will kill, and conceit will cure," is an embodiment of the philosophy of globulistic and mesmeric therapeutics. The acquisition of a certain amount of medical knowledge, by uninstructed daily experience, is equally illustrated by the proverbial saying, "A man is either a fool or a physician at forty."

"What, then, is the requisite conduct for the attainment of the wise experience of which I speak? Simply this; long-continued, sedulous, accurate observation of manifest external phenomena—observation independently of aids, and therefore prompt, because practicable under all circumstances, in which the eyes, the ears, and senses generally can co-operate with the instinctive exercise of the judgment, or common sense, as it is termed. There must be the practiced eye and ear, trained by long use; the practised judgment, trained by careful exercise. All men have not the natural qualities; many want the industry; but to those who have both, experience will afford a power of intuition such as is sometimes really marvellous in its results."

Previously to the days of Sydenham, theory and speculation had assumed a control over the medical mind that led to the establishment of *systems*, arbitrary in themselves, and often not containing a single truth. Such a state of things met with very strong opposition from Sydenham. He was not long in discovering the injurious consequences, and set himself about the work of reform. The following from his pen is instructive:

"In writing the history of a disease, every philosophical hypothesis, whatsoever that has occupied the mind of the author, should lie in abeyance. This being done, the clear and natural phenomena of

the disease should be noted—these, and these only. They should be noted accurately in all their minuteness, in imitation of the exquisite industry of those painters who represent in their portraits the smallest moles and the faintest spots."

Such would seem to be a very complete guide to the young man, and he might scarcely think there was room for a further investment of care. What, by such a course of observation would accumulate in his mind, he would naturally suppose applicable to the same disease, occurring in other individuals. In this, he would likely be disappointed. It is a maxim that "no two cases are exactly alike." Individuality and idiosyncracy complicate, to say nothing of more frequent minor causes; and what is worse, no accumulation of evidence, in the present state of science, can provide against errors arising from such conditions. Just here, then, we see the importance and incompleteness of the purely experimental method of research. In chemistry, in electricity, &c., experiments are comparatively conclusive—exhaust, as we regard it, the subject. Where, however, the element of life is added to matter, possessing connections with it that are unknown, and unknowable, and exercising influences over it totally occult, experience comes short, and at best, gives us but limited views.

As rather an auxilary to observation and experiment, we have what is termed the "Numerical Method"—a method by which facts are collected, calculated, compared on etiology, symptomatology diagnosis, prognosis, therapeutics, &c. Experience tells us that a certain event is generally expected to occur under certain circumstances; the numerical method tells us how often it is to be expected. Experience tells us that a certain event will be generally followed by another; the numerical method shows us how often the sequence takes place. In short, the numerical method consists in collecting statistics in regard to the facts, phenomena and events of disease. This method enlarges and corrects our experience, and is one of the most valuable improvements of modern medicine. A relation, for example, has always been known to exist between hemoptysis and tubercle, but it is only since the application of this method that 80 per cent. of the cases of tuberculization is attended with hemorrhage from the lungs. Cholera and typhus fever have the reputation of being connected with various degrees of mortality. The numerical system, however, shows the mortality of the former to be 40 per cent.; of the latter to be 10 per cent.

The following is the author's views on the application of the Numerical method:

1. It is most essential that the observations, facts, or events, be as nearly alike as is practicable. There may be a numerical statement as to two events, *e. g.*, life or death, applicable to the entire number; or the observations may be grouped under subdivisions, *e. g.*, for the purpose of determining numerically whether male or female live or die; these again may be arranged under ages; again under employments, diathesis, race, and the like.

2. The number of observations should be considerable. In proportion as they are numerous, and at the same time accurate and comparable, in the same degree the results are trustworthy. As a general rule, it may be stated that the tendency to fluctuation decreases as the intensity of the law approaches unity. For example, there is much less fluctuation observed in the law of mortality from cholera than of that from typhus.

3. The calculus of probabilities supplies the means of correcting errors from a small number of observations. This teaches us that where an event has been observed to happen a certain number of times in a given number of cases, the probability of its happening again is not represented by the actual number observed, but lies between limits somewhat greater and somewhat less than that number; these limits varying more widely as the number of observations are few.

4. The observations must be scrupulously accurate, at least as to the events or circumstances that you tabulate. In selecting published observations, care must be had as to the capacity and trustworthiness of the reporter. As a general rule, without taking into consideration the merits of individuals or the weight of names, reports from hospitals, or reports made under circumstances such that more than one or two have witnessed the cases detailed, are to be preferred to less authentic facts. But cases of very varying degrees of accuracy or fulness may be used, provided there be accuracy as to the special points tabulated. If, for example, you are investigating questions as to strangulated inguinal hernia, the age, the sex, and whether on the left or right side, may be correctly stated in a case when the duration, the progress, and the termination may be untruly or incorrectly given. Such a case is available, therefore, for tabulation, as to the three points of accuracy, although worthless as to the other statements.

5. The heads of tabulation may be as numerous as is convenient, but the analysis should be limited to heads that are well defined and susceptible of disclosing a law; for in proportion as the events or phenomena are complex and the heads numerous, the investigation is difficult and its results uncertain. Beyond a certain point algebraic formulæ become necessary, and the necessary calculations are not only laborious, but require a larger acquaintance with mathematics than students are expected to possess.

6. It must always be borne in mind that although the elements are correct, the mathematical certainty of the method applies in absolute strictness to the entire mass of the facts only, and not to the individual instances. In other words, you can not reason more mathematically or absolutely from the general to the particular than you can from the particular to the general.

7. Numerical tabulation and analysis is an art only to be acquired by practice and by imitation of the best models. When applied, the extent of its application will depend, in part at least, upon the extent of the knowledge of the things investigated possessed by the inquirer.

The author insists very strongly on the propriety of *theorising*, and asserts that this is the key with which the most important secrets are unlocked.

"If Columbus had not had a geographical theory of dimly conceived Western lands, and the great kingdom of Cathay, he would never have set forth on his voyage of discovery. Without theory, Harvey would not have unfolded the circulation of the blood. Without a theory the grand laws of the universe would not have been revealed to Newton, and this Newton knew well."

The word "*Theory*," is very equivocal in signification. Its acceptation as it usually occurs in medical writings, differs in no respect from *hypothesis*. It assumes to account for certain phenomena without any settled evidence of its truth. In a word, it is mere speculation. This is very far from the sense in which the term is used by the author before us—his illustrations of the use of the process already given shows it to differ in no essential respect from what is usually called the "*Inductive*" process. To theorise, according to our author, is to make inductions from facts—to reason on facts.

The mere act of collecting facts is sometimes called the "*Inductive*" process; at other times, authors make this process consist, not only in the gathering together of the facts, but also in the drawing of inferences from them. Elementary writers of very superior merit fail to be clear just here. In what does the process of collecting facts differ from "*Observation?*" or in what does the drawing of inferences differ from the process of the syllogism—from reasoning.

"Induction means, properly, not the deducing of conclusions, but the *bringing in*, one by one, of instances bearing on the point in question, till a sufficient number has been collected."—*Whately.*

Induction, therefore, as a process of inquiry, consists in collecting a sufficient number of facts to form the premises of an argument—

nothing more. The "inferences," or "deductions," or "theories," from these premises involve the process of reasoning. Bacon, if we have not misapprehended him, did nothing more in the Organon than to suggest the method of perfecting the premises of the syllogism, the syllogism itself belonging to Aristotle.

Medical Notes and Reflections. By Sir Henry Holland Bart, M. D., F. R. S., etc. etc., Fellow of the Royal College of Physicians, Physician in Ordinary to the Queen, and Physician in Ordinary to his Royal Highness, Prince Albert. From the Third London Edition. Philadelphia: Blanchard and Lea, 1857. *For Sale*, by Riley, & Co.

The first edition of this work was republished in Philadelphia in 1839, and so received by the profession in America, that the author has been induced to prepare a third edition somewhat altered and enlarged in form.

In the former editions a few chapters were included on Psychological subjects—the mutual actions and relations of mental and bodily phenomena, which constitute the life of man. These chapters have been excluded from the present edition, and placed in another volume entitled, "Chapters on Mental Physiology." This has led the author to supply their place with others more nearly allied to the scope of the work.

The chapters in the first part of the volume relate mostly to pathological principles, and the author has sought to associate these in a manner more natural than what usually obtains in our systems of nosology. The chapters comprised in the latter part of the volume relate more especially to the treatment of disease, "including under this term not solely the consideration of particular medicines or remedial means, but also the methods in practice which a physician may expediently follow and the duties he is bound to fulfil."

These "*Notes and Reflections*" appear to be founded on the private practice of the author for a period of thirty-six years. They are not presented as furnishing the same striking conclusions as those drawn from hospitals, or those from the statistics of medicine, and which are so fruitful of results, but as embodying the views and reasonings of a prolonged experience.

The work is made up of thirty-one chapters, which occupy nearly 500 pages.

The chapter on "*Medical Evidence*" is the one with which the work is commenced. Did our space permit we should like to transfer it entire to our columns. Nothing that we have seen lately, takes so philosophical and comprehensive a view of medical evidence. The subject is one of those which lays at the very foundation of success in every department of medical inquiry, and there is no place where the capacity of the medical man is so easily tested as with reference to the estimate he places upon the import of the phenomena continually passing before his mind.

There can be few better tests of a sound understanding, than the right estimation of medical evidence; so various are the complexities it presents, so numerous the sources of error. The subjects of observation are those in which Matter and Mind are concurrently concerned;—Matter under the complex and subtle organization, whence vitality and all its functions are derived; Mind in its equally mysterious relations to the organs thus formed;—both subject to numerous influences from without, both undergoing very various changes from disease within. Individualities of each have their effect in creating difficulties, and these amongst the most arduous which beset the path of the physician.

Few cases occur strictly alike, even when the source of disorder is manifestly the same. Primary causes of disease are often wholly obscured by those of secondary kind. Organs remote from each other by place and function are simultaneously disturbed. Translations of morbid action take place from one part to another. Nervous affections and sympathies often assume every character of real disease. While remedial agents are rendered uncertain in effect by the various forms of each disorder, by the idiosyncrasies of the patient, by the difficulty of securing their equal application or transmission into the system, and finally by the unequal quality of the remedies themselves.

While such troubles lay in the way of the medical man, and embarrass his movements, they nevertheless, as has been suggested, confer upon medicine its highest character as a science. Legal evidence or the evidence connected with physical science in its more simple material forms, is easily appreciated, when compared with that presented to the physician. The introduction into an organism of the principle of life, produces a new world of relations, occult and complex in their nature, and often totally incapable of being resolved. Besides, when disturbed by disease the liability to error is increased a thousand fold. What embarrasses the physician also embarrasses the mass of mankind. Indeed, it is the want of this right understanding of medical evidence that renders the people,

"so prone to be deceived by imposture of every kind, whether it be the idle passion as to particular remedies,—or the worse because wider deception of some system professing to have attained at once what the most learned and acute observers have labored after for ages in vain."

What else than the want of a proper qualification to appreciate the evidence connected with the effects of drugs is it that makes physicians themselves report so sanguinely on the effects and causes by agents only put a few times on trial. Conclusions of such a character require for confirmation a long average of cases, carefully selected and freed from all chances of error and ambiguity. Let any one conversant with the history of medicine enumerate the inert and useless drugs that have had reputation in former times, and the fashions of doctrines and treatment that have obtained at various periods and he will be reminded of the necessity of being cautious in his conclusions. Hear the author on this point:

Look at what is necessary in strict reason, to attest the action and value of a new remedy or method of treatment. The identity or exact relation of the cases in which it is employed;—a right estimate of the habits and temperament, moral as well as physical, of the subjects of experiment;—allowance for the many modifications depending on dose, combination, quality of the medicine, and time of use;—due observation of the indirect or secondary, as well as direct, effects;—and such observation applied, not to one organ or function alone, but to the many which constitute the material of life. All these things, and yet more, are essential to the completeness of the testimony. All can rarely, if ever, be reached; and hence the inevitable imperfections of medicine as a science. But much more, doubtless, of truth and beneficial result might be attained, were these difficulties rightly appreciated, and the fit means of obviating them kept more constantly in view.

A great source of error is the imperfect knowledge we yet possess in regard to the office of important, or to say the least, prominent organs. Although known in its most minute anatomy, the liver still offers many problems not yet solved in regard to its functions and their relation to respiration. Two of the leading physiologists of the present day, Leibig and Bernard, are here at issue. The same may be said in regard to fever, whether symptomatic or idiopathic in kind—to the doctrine of inflammation,—to the history of contagious diseases, to the *action* of remedies, etc., etc. Add to such the ambiguity of language used in descriptions, the false maxims which have obtained currency, and the artificial classifications which are adopted for the want of better, and some conception may be expe-

rienced of the investment of care, patience and skill, which the vocation of the medical man requires.

We are very far from having a disposition to over rate the difficulties connected with medical research. Rather would we look at the bright side of the picture. But unless the ground is properly surveyed, and everything included in the calculation, false conclusions and disappointment must be the result of any one however well gifted. While scepticism, therefore, may be regarded as a healthy condition, and calculated to inspire proper caution, the stock of information which has been accumulated by observation and experiment, is such, as not only to show actual progress, but it is calculated to inspire large assurances for the future. Within a quarter of a century Medicine has received an impulse in the way of accuracy and results that has lifted it entirely out of its former position, and closely allied it with the progress of other departments of physical science.

Chapter vii, is "on the Iufluence of Weather in relation to disease." Among the topics discussed in this chapter is *Solar Light*—its influences upon health, etc. No one who has given any attention to the influence which this great agent exercises in all other forms of living organization, can doubt for a moment its powers, however occult these may be in our present state of knowledge, to vary by its absence or presence the state of human health. We have long suspected its absence as being concerned in the production of no small share of the bad health that usually falls to the lot of those who spend most of their lives within doors. The following is suggestive:

Dr. Reid, of Edinburgh, has inferred from experiment, that the effects produced by an atmosphere loaded with excess of carbonic acid, are more speedily removed when the patient is placed under a strong light, than when merely brought into fresh air. In conformity with this, it has been found that there is greater proneness to disease in those parts of crowded buildings, such as barracks, from which light is most excluded; a fact of which Sir James Wylie's experience in Russia affords some striking examples.

When the first edition of this volume was in press, the discoveries of Daguerre and Talbot had just been announced. In the short interval since, photography has become an important branch of experimental knowledge, as well as a refined and beautiful art. The enlargement it gives to our views of the chemical agency of light, is the great feature of this discovery: but extended as the research has since been, it may be said to unfold other new conditions of this great agent (*lo ministro maggior della natura*) both in regard to its

own constitution, and to the ponderable forms of matter on which it acts.

The term *unfold* has more peculiar fitness in this case, where modern science has disclosed in the solar spectrum not only three primary rays of color, wrapt within each other in different proportions, but also calorific rays, and others of chemical action, similarly diffused, in varying ratio, over the whole spectrum, and even beyond its visible boundaries;—and yet further, an interlacement of dark lines (some hundreds of which have been distinctly noted,) fixed, invariable, and originating apparently in the source of light itself. This complexity of parts in the single beam becomes yet more wonderful when looking to the character of those movements in space and time, which may be said to form the essence of light, as far as it is cognizable by us;—physical conditions which man has found means to express by numbers, but which the hardiest conception is unable to follow in thought.

The author has some very valuable hints, for as yet they must be regarded merely as hints, on the agency of the *atmosphere* in the production of deviations from the standard of health The remarks are ranged under the following heads: The *temperature* of the air; its *hygrometrical* state; its *weight;* its *electrical* state and changes. Health, it may be predicated, obtains, in all latitudes, as a result of a medium state of the atmosphere, while disease depends upon its variations. With respect to the influence of these variations we are yet upon the threshhold of the inquiry. By late research errors that formerly pervaded society and the medical profession, have been to some extent corrected. The temperature of the atmosphere has been regarded as having a very intimate relation to some of our most common and fatal disorders. Consumption has been associated with cold, variable climates. The connections of the disease with the latter condition has perhaps not been dissolved by any new light thrown around the subject. That mere cold, however, where there is no organic diseases, has any tendency to awaken into activity a latent tubercular diathesis is very questionable. Reports show consumption to be confined mostly to temperate latitudes, and of no more frequent occurrence towards the poles than in tropical regions. In Dr. J. Johnson's work on the diseases of Tropical Climates, the error is corrected that hepatitis shows itself more frequent, unless as a sequel to fever, in the plains of Bengal than on the coast of Coromandel. In the plains of Bengal, intermittent fever is prevalent, ten times more so than on the coast. The English having possession of Madras, have instituted observations on the climate of that portion

of Hindostan. The singular fact has been revealed that the medium annual temperature is found to be the highest yet discovered on the globe (88 degrees Fahrenheit); that of Calcutta about ten degrees lower.

Cold applied externally exercises a very potent influence over the capillary circulation and smaller arteries; and in this way controls indirectly the action of the heart. By this agent, as the experiments of Poiseville and Magendie prove, several pounds of the circulating fluid may be compelled to assume new positions—a circumstance that of course may predispose to or aggravate existing disease. That, however, as an etiological element, low temperature, has been over-rated, there is little doubt. The practice which so universally obtains of attributing the changes which occur in the course of diseases, to "*catching cold*" may well be regarded as a very fertile source of error.

With the use of cold as a remedial agent the profession is familiar. We see nothing new on the subject by the author before us. Currie led off on this subject a quarter of a century since in the treatment of fever; and while the profession of England and America has been content to occupy a position which is still rather in the rear, a system of quackery has sprung up that has carried the practice beyond every principle of propriety.

The following are some views of the author as it regards cold climates:

"It is not easy to say exactly how far practice might prudently run in an opposite course. As respects climate, indeed, the commingling of conditions is such, that to prescribe cold climate as a remedy would not only seem a bold anomaly in practice, but an object scarcely to be attained, without incurring other effects, wholly apart from temperature. The recommendation of warm climate has a specious sound, and is in reality perhaps more consonant with the habits and necessities of English life. Nevertheless, though this change be better suited to the greater number of cases that come before us, yet is the recommendation of a colder climate not wholly without sanction in some disorders, and still more as a means of preserving health in particular habits. Admitting freedom from organic disease or any active disorder, two or three winters of Canadian life will often do more to invigorate a languid habit, than the same seasons passed on the warm shores of Nice, Naples, or Palermo."

The chapter on the Medical Treatment of Old Age abounds in practical information, not only as it regards the changes made on the

organism by age, but also as it relates to the use of medicines. Advanced age, as all know, alters essentially the structure of all the tissues of the body. The heart continues to grow throughout life, but most of the glands, the muscular and nervous tissues, become impaired in function and more or less atrophied. The most knowledge we possess with reference to the action of medicines under such circumstances, point only to degrees. Certain states, however, of the nervous centres imply an absolute qualification. The following on the use of *Opiates* may, to the young practitioner, prove instructive:

"Many of the foregoing remarks are applicable to general practice; but I specify them here as comprising the principles which may best regulate the use of depleting remedies in old age. Another important question regards the employment of Opiates at the same period of life: nor is this without its peculiar perplexities. Besides the modifications which are required from the different relation of years to bodily powers, and those further made necessary by the various idiosyncrasies as to opium, we have another speciality in this part of treatment from the changes which the functions of the brain, and often even its obvious texture, undergo in advanced age. Some of these changes are of a nature to render the action of opiates ambiguous at least, if not in many cases distinctly hurtful. The vague dozing state, which steals gradually upon the aged, and, without any acute disease, seems in the end to turn life into a mere dream—this state expresses an altered condition of the brain and nervous system, in which narcotics probably quicken the change and render it more complete. Happily these are the cases in which they are generally least required. The state in question is a benign dispensation to the extreme term of life; expressing a gradual change without suffering, and rarely coming within the proper scope of medical treatment, unless there be some sudden passage into what is obviously a condition of coma. And even where other organs are more actively diseased, the sensibility in such cases is often so far lessened, as to supersede the remedies which are necessary at other periods of life to relieve irritation alone."

We here take our leave for the present of this volume. It is really *multum in parvo*—arranged in very good order, and written in fair style. The book is one that should be extensively read. It will prove interesting to the physician of experience, and instructive to the young men who are desirous of laying rightly the foundations of professional usefulness.

The History, Diagnosis, and Treatment of the Fevers of the United States. By ELISHA BARTLETT, M D., late Professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons of the University of the State of New York, etc. etc. Fourth Edition. Revised by A. Clark, M. D., Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons of the the University of New York. Philadelphia, 1856. Blanchard & Lea. Pp. 610; 8 vo.

The fact that the above work has already advanced to its *fourth* edition, is sufficient evidence of its popularity and value. Although the first edition was an essay upon typhus and typhoid fever alone, it at once took rank among the best of our standard works on fever. In the subsequent editions were added the history of periodical and yellow fever, until now the work is truly what it professes to be, a methodical and systematic treatise on the fevers of the United States. While the writings of Drs. Bartlett and Gerhard deservedly stand at the head of that class of physicians, in this country, who believe and teach the doctrine that typhus and typhoid fevers are specifically distinct, as specifically distinct as small-pox and scarlatina, as "shown by the difference of their *symptoms, course, duration, lesions* and *cause;*" Dr. Clark, the intimate friend and associate of Dr. Bartlett, and to whom he committed the task of revising this edition before his death, takes an equal rank among that equally large class who believe and teach the essential *identity* of these two forms of disease. Both are experienced in the management of the two diseases, are equally honest and truthful, possessed of great energy and sound judgment, and guided by the true medical philosophy. Dr. Clark's notes and additions are enclosed in brackets, and are by no means the least important and valuable part of the work. We cannot show our own appreciation of the value of the teachings and writings of Dr. Bartlett better than by quoting from the preface written by his eminent friend and editor.

"The distinguished author of this volume had performed his last scientific labor, when his third edition was prepared for the press. Sixteen months ago, (Nov. 1856,) he closed his brilliant professional career, after years of growing bodily weakness and pain; his mind not dimmed by his physical infirmities, but bright and comprehensive, glowing with the memories of the past and the visions of the future. He died too soon for the profession he adorned. * * * The whole profession are his mourners; for conspicuous as he had become by his medical writings, and his extended professional labors;

his acknowledged worthiness, his innate gentleness and modesty disarmed envy. He left no enemies. His mind and purpose were pure, almost beyond example. His high mental endowments were controlled and directed by a considerate judgment and an earnest, benevolent heart. * * * * *

Dr. Bartlett has written wisely on medical philosophy, but perhaps this book on fevers is his true 'Philosophy of Medical Science.' It is the practical application of his own precepts. The question may be fairly raised whether any book in our profession illustrates more clearly the beauties of sound reasoning, and the advantages of vigorous generalization from carefully selected facts. Certainly, no author ever brought to his labor a more high-minded purpose of representing the truth, in its simplicity and in its fullness, while few have been possessed of higher gifts, to discern and gracefully to exhibit it."

The first part, consisting of one hundred and seventy-eight pages, is devoted to typhoid fever alone. The second, of one hundred and sixty-two pages, to typhus, and to the discussion of the question of the identity or non-identity of typhus and typhoid fever. The third part treats of periodical fever, and its three varieties, bilious remittent, congestive and intermittent, and consists of one hundred and six pages; while the fourth part, of one hundred and twenty-nine pages, is devoted to yellow fever; these four, typhoid, typhus, periodical and yellow fevers, constituting all the essential idiopathic fevers met with in this country. The fever known as ephemeral, although idiopathic, he does not consider as an essential *fever*, and should hardly be dignified by such a term, while the relapsing fever of Jenner, both he and Dr. Clark have never seen, and say that if found any where as a distinct disease, it does not exist in this country. Our author gives the first form of continued fever which he describes the name of typhoid fever, "simply because this term is not particularly objectionable, and because it seems to be coming into general use," though afterwards he says, because of the manifest difference between it and the British typhus, he finds it "necessary to give it another name, and hence, in conformity to the example of Louis, Gerhard, Jackson and others, he has chosen the appellation of typhoid fever." Since nearly all writers and teachers of the present day agree as to the propriety of the use of the term Symptomatic Typhoid Fever, as applied to that febrile movement supervening upon and symptomatic of an inflammatory fever, when of long continuance, because of its close resemblance to typhus in *appearance* and, as it seems to us, this name is proper and peculiarly appropriate as expressive of that resemblance, we are exceedingly sorry that Dr.

Bartlett can find no better reasons than the above for continuing to use the term typhoid fever, when applied to the disease he is about to describe. The term typhoid means *resembling* typhus, and should be restricted to that signification. It is thus used in describing the symptomatic fever above spoken of, and it is thus used every day by all physicians, when speaking of the *typhoid* complications and elements of different diseases, as of erysypelas, scarlatina, pneumonia, dysentery, etc. Dr. Bartlett himself uses the term typhoid in this same sense frequently, and we can hardly doubt that he would have chosen the German term, typhus abdominalis, or that of Cullen, typhus mitior, had he not feared this nomenclature would militate against his favorite theory of the essential distinctness of the two diseases. Until this question of their essential identity or non-identity is decided, in all probability the present nomenclature will not be changed, however desirable it may be.

The decision of this all-important question of theorists, depends upon several other questions, which, notwithstanding the amount of talent engaged in their discussion, must still be regarded as *open* questions. The specific difference of the anatomical lesions in the two diseases must be settled, and that too, without making the *diagnosis* turn upon the presence or absence of a particular lesion, discovered perhaps unexpectedly at the autopsy, and which was previously determined on as specifically characteristic of either disease. We cannot avoid the conviction that our author stands in his own light in this respect. He says the characteristic lesion of typhoid fever, "for there is no single one, or even two or three specifically characteristic *symptoms*, always present," consists in the alteration of the elliptical plates of Peyer, varying from the most extensive ulceration of them and perforation of the intestine, to an increased prominence merely, giving them a peculiar appearance very like the newly shaven beard, and always attended with enlargement, with or without redness and softening, of the mesenteric glands corresponding to the seat of the changed Peyer's plates. If this lesion is present, the disease is *typhoid fever*, if not, *not*. A new method of "diagnosis by exclusion," surely! Had he described typhus fever first, and made its no less distinctive characteristic lesion, that of the brain and its membranes, the turning point in the diagnosis, he would have said in the same manner, "if this lesion is present, the disease is *typhus fever*, if not, *not*." In this latter case, many of the cases that he now sets down as typhoid, because

of the presence of the abdominal lesion, would be classed as typhus, because of the presence of the head lesion, which he concedes, not unfrequently is found in persons dead of typhoid fever. So now, (there is the very best of authority for believing, indeed we have seen instances ourselves,) many cases of typhus, and these of the worst, or ship fever form, are put down as *typhoid*, simply because of the presence of the abdominal lesion peculiar to typhoid fever! That a distinction is properly made in the two diseases, from lesions that are *generally* characteristic, we admit, but unless they are always present, they will not go far towards proving the diseases to be specifically distinct. As we said before, the method of diagnosis adopted by the advocates of this doctrine will prove it, but we submit that it is not in accordance with sound medical philosophy to diagnose disease in that way alone.

What shall we say of those cases in which there has existed neither typhoid nor typhus fever, without even any typhoid element having been present in their diseases, and yet the so-called Anotomical lesion of typhoid fever is found? A well authenticated case is that of a child who died at Newburyport, Mass. He was well, to all appearances, and had been up to the time when, in the afternoon, he swallowed a quantity of percussion caps. On the evening of the same day he died, and at the *post-mortem* examination there was found as complete and perfect a specimen of ulceration of Peyer's plates and enlargement of the mesenteric glands as ever was seen in typhoid fever. We saw the following case: While at Pittsfield, Mass. in the fall of 1850, we were called to prescribe for a child laboring under an attack of Spurious Hydrocephalus, following a diarrhœa, supposed to be induced by teething. The child subsequently died, and we made the *post-mortem* examination, assisted by Dr. Wilson. Dr. Clark, then lecturing at Pittsfield, was present, and we found the lesion of Peyer's plates, as seen so commonly in typhoid fever; not however advanced to ulceration. Accompanying this were also the enlarged mesenteric glands. It was considered so fine a specimen of the first stage of the lesion of typhoid fever, that Dr. Clark exhibited it to his class. Thus, it seems, we do sometimes have the distinctive lesion without typhoid fevr. We are also equally certain that occasionally typhoid fever has existed when the specific lesion could not be found, though carefully searched for. In deciding upon the question of identity of these diseases, it will become necessary to determine the relation existing,

as to cause and effect, if any such obtains, between the lesions of each disease and the febrile movement and symptoms, which, taken as a whole, gives to each its distinctive character and name. The Œtiology of these diseases must also have an important bearing upon, and great weight in settling this question. Although the influence of the common causes of acute diseases is important, and their value ascertained with a good degree of certainty, still the essential causes, the *causæ sine quâ non*, are of much more importance, and as yet, least ascertained and understood. Until these are shown to be distinct and specific, the specific distinctness of the diseases can not be proven by these means.

Already some data are established, which, so far as the relation that exists between the disease and its causes is concerned, appear to us as tending to confirm us in the belief that the two diseases are essentially the same, that they are varieties of one and the same essential and specific disease, and are as closely allied, in all probability, as billious remittent and intermittent fevers are. Both prevail at all seasons of the year, though more common in the autumn and winter; both are diseases of the temperate zones, though by no means uncommon in every region of country, particularly where periodical fevers do not prevail; both occur epidemically, though typhus is epidemic more frequently than typhoid; both are contagious, though typhus being the graver form, is much more so; a patient sick of either form will communicate the same or the other form of the disease; a previous attack of *either* affords nearly or quite as complete protection from a second attack of the same, as obtains in either measles, scarlatina or small pox, though ship fever is more apt to occur a second time than typhoid; and, what is more remarkable, a person having had either is as completely protected against the *other* as he is the form from which he has suffered. About one in every fifteen cases of typhoid fever will show the peculiar lesion of the brain and its membranes, exactly the lesion of typhus; and about the same ratio of typhus will exhibit more or less change of the elliptical plates and mesenteric glands, as seen in typhoid fever, exactly. The relative proportion of fibrin in the blood is diminished in both diseases, but less in typhoid than in typhus. Upon this fact, mainly, is founded the theory "which places the primary and fundamental alteration in the blood. We may be justified, I think, in saying that at least this theory has more claims upon our attention, and is more probable, than that of which I have just

spoken. It is already demonstrated that, in many cases of typhoid fever, and in other diseases to which it is more or less nearly allied, especially by the common presence in them all of what has been called the *typhoid state*, or the *typhoid element*, in pathology, important and peculiar changes have taken place in this fluid. These changes may have been *primary* and *essential*. There is good reason to think, at any rate, that they play a very important part in the pathology of these diseases. They deserve further investigation, and they ought never to be overlooked; but their actual relations to these diseases are very far from being ascertained."

Dr. Clark, in a note to the remarks of Dr. Bartlett, of which the above quotation is a part, upon this subject, gives the substance of the views lately expressed by Dr. Parkes, of the University College and Hospital, London. They are as follows:

"That a subtile morbific agent enters the blood, and changes, perhaps, gradually, its constitution; that, sooner or later, this changed blood produces a change in the composition of the nerve-centres, particularly those which preside over the nutrition and consumption of the tissues; then occur, he says, 'the nervous symptoms of weakness, depression, rigors, contraction of some parts and vessels, speedily followed by relaxation, marking the stage of invasion;' that now muscular and other tissues, deprived of a portion of their innervation, begin to disintegrate, and, by slow combustion, their elements are more or less completely consumed, producing preternatural heat; that the increased action of the heart and the dilated state of the vessels, depend on changes in the nerve-centres and nerves which preside over these parts, and that this condition of the heart and vessels, in its turn, aids in producing these changes of the tissues; that in some febrile states, often in typhoid fever, the products of this combustion are not immediately thrown off by the emunctories, but remain mingled with the blood, still further contaminating it; and finally that the combustion is often incomplete, and 'the partially metamorphosed substances are retained in the body.'

In the closing remarks of the editor upon these somewhat novel points in the theory of fever in general, he says:

"But if we admit, as everybody seems to be ready to admit, that there may be physical changes in the nerve-centres and in the nerve-tubes, sufficient to produce the gravest alterations in their functions, and yet that our means of investigation do not yet enable us to demonstrate those changes, we shall not be too rigorous in our demand for proofs, and shall, perhaps, be ready to admit that the physiological inferences, the analogies, and the facts adduced by Dr. Parkes, go so far, at least, as to render his opinion probable. Yet, regarding this point, as well as that which has been just dismissed, though it

may not be fair to use the language of Dr. Parkes, and say that we are still in the 'regions lighted only by the dim and treacherous ray of speculation,' we may properly wait for additional facts to confirm these doctrines.

What we have chosen to say upon typhoid and typhus fever will necessarily prevent us from giving more than a passing notice to those parts of the work devoted to the history of periodical and yellow fever, in the present No. of our Journal. At some future time we may notice the third and fourth parts at some length. It is a work of great practical value and interest, containing much that is new relative to the several diseases of which it treats, and with the additions of the Editor, is fully up to the times. The distinctive features of the different forms of fever are plainly and forcibly portrayed, and the lines of demarcation carefully and accurately drawn, and to the American practitioner is a more valuable and safe guide than any work on fever extant. E. L. H.

PART FOURTH.

EDITORIAL AND MISCELLANY.

Meeting of the American Medical Association.

This body is announced to convene in the city of Nashville, on Tuesday, the 5th of May, 1857.

As all know, the Association is made up of delegates from local institutions, members by invitation, and permanent members.

Medical societies, medical colleges, hospitals, lunatic asylums, and other permanently organized institutions, of good standing, are entitled to delegates. Societies are entitled to one delegate for every ten resident members; medical colleges, hospitals, etc., are each entitled to two delegates.

Previously to the eighth meeting of the Association, evidence had accumulated that rendered it pretty certain, that there were organizations which had been allowed a representation in the body, which were not disposed in all matters to co-operate. This led, at the time, to the adoption of the following resolutions:

Resolved, That no State or local society shall hereafter be entitled

to representation in this Association, that has not adopted its code of ethics.

Resolved, That *no State* or society, that has intentionally violated or disregarded any article or clause in the code of ethics, shall any longer be entitled to representation in this body.

Resolved, That no organization or institution entitled to representation in this body, shall be considered in good standing, which has not adopted its code of ethics.

These regulations, although they may not prove very convenient, to a certain class, are nevertheless founded on prudence and wisdom. Political and religious organizations embrace similar principles.

Every organization possesses something that may be called its constitution, something that serves as a kind of general regulator. The intercourse between medical men is a very important matter, so far even as their own welfare, or the welfare of the public is concerned. There is a number of ways, it has been suggested, by which it may be regulated. One would say, trust to the moral sense of individuals who understand the local circumstances with which they happen to be surrounded. Another would say, we have a "divine code," equal to every kind of emergency; trust to that. In regard to the former of these positions, it may be submitted that we would be likely to have as great a diversity in codes as there are of individual temperaments and moral constitutions. In regard to the latter, it would be a very easy matter to show that it is simply a "sophism of composition." Why not take also the position and argue it, that the "divine code" should take the place, at once, of all political and secular codes?

Medical intercourse, like every thing else, has its peculiarities, and these require special rules. Such have been established, not founded upon the views of a single individual, however learned or able, or of a class of individuals in any particular locality; but upon the views of the good and great of all ages of the world.

The Association has been in existence about ten years, and it might seem proper now to retrospect its influence on the profession, and also to re-examine its transactions and learn what has been accomplished. To do this formally, would involve no small amount of labor, more than at present we have at our command. Throughout the country, it has had the effect to unite the profession, and inspire good feeling. No one has ever attended one of its sessions, without returning home and feeling improved and enlarged in his

views; and also with a more exalted opinion of the profession of which he is a member.

The contributions for the decade, would be regarded, perhaps, as large in any country. In quality they may fall short of what belongs to older countries. This, however, will be found to be relative. The papers of the Association, bear scrutiny on Medical and Surgical pathology, on the effects of remedies, and are by no means meagre in the way of original research. In this sphere, however, there is the greatest room for improvement. The amount and versatality of talent, developed by those transactions, show, nevertheless, what may be done here when attention is turned in this direction.

It is an ambition prevalent among us to have a National Medical Literature. Without this, our country, our cities and towns, may figure on maps; our geology, topography, meteorology, population, medical institutions, &c., may find a record in books, but of the character of our profession, there can be no just estimate, without something in the way of a national literature. The basis of this never can be made to consist in merely making ourselves acquainted with what has been done in other countries, though this is a proper study, and without which a nation would be simply pedantic; but it must consist in entering the mines for ourselves, and quarrying out our share of the treasures. Three-fourths of the physicians of London knew more, perhaps, of what others had done, than did Jno. Hunter. About that he concerned himself but little. His own researches, nevertheless, gave character to himself, and to his country. The name of Hunter, is now the symbol of English Medical Literature.

Convention of Medical Editors.—The *Southern Jour. of the Med. and Physical Sciences*, proposes that a Convention of "*Medical Editors*," of the American Medical Association, be held at Nashville, during the sittings of the Association.

The following is a summary of the objects to be accomplished:

1st. To indemnify the publishers of Medical Journals against the unreasonable losses sustained on account of the *delinquencies* of subscribers.

2d. To improve the *quantity* and *quality* of *original* communications.

3d. To take into consideration the subject of *advertisements.*

The remedy for the first of these troubles, we should like to see. It is an affection that is more general than might be imagined. Fully one-third of all connected with medical journals as subscribers, sooner or later, take the "*delinquent fits;*" and the malady once contracted, is about as persistent and incurable as epilepsy. Our voice is in favor of "experimenting" a little, at all hazards, and we are ready for any suggestions in this line from Nashville.

With respect to an improvement in the number and character of original communications, there is great room for effort. But how is the object to be accomplished? Time and again we have adverted to this matter in the Journal; and scarcely ever have had an interview with the young men of the profession, without embracing the occasion to suggest what might be done in this way for their own improvement, and the improvement of the profession. Could the fact be generally appreciated, that it is from the sum of such communications, that our opinions on all difficult points are formed, those who are qualified to labor in this line would certainly see things in a different light. It is altogether probable that there are observations enough now, in the hands of the profession, if properly digested and communicated, to settle many important questions. How shall those who can be useful just here, be made sensible of their duty? We are ready, on this point also, for any suggestions.

An impression that exercises a very sedative influence over many minds, is that most all improvements in medicine emanate from seats of learning, large cities and the like. This error is somewhat corrected, when we reflect that a knowledge of many of the most important articles of the materia medica, and many of the important surgical operations have been carried from the interior to the cities, to be incorporated into the common literature of the profession.

Lenticular Cataract — Operation on both Eyes — Unsuccessful Result — By the Editor, Jno. Dawson, M. D.

Case — James Shannon, an *Irish laborer;* occupation, fireman on a Steamboat; general health, tolerable; affected with "*Lenticular Cataract.*"

HISTORY OF THE DISEASE.

This patient made his appearance in the Ohio Penitentiary, in the month of November, 1855. He stated that about 8 years previously he had suffered from an *attack of fever*, and the next year (seven years ago,) he first felt the trouble in his eyes — to use his own language — in the form of "a weakness." His occupation for the entire period of the 8 years, succeeding the attacks of fever, consisted mostly of the duties of a fireman. He stated that sometime previously to the commission of the crime for which he was sent to the Penitentiary, that he had concluded to *quit fireing* on account of the condition of his eyes.

PATHOLOGICAL CONDITION OF THE EYES.

So far as could be ascertained, there was no disease of the retina, of any of the coats, or humors of the eyes, or of the parts auxillary. The trouble was found in the *Chrystalline Lens*. After dilatation of the pupil by belladonna, the lens was found to be opaque from center to circumference. The circumference was marked by radii giving to the opacity the "*stellated*" form; color, yellowish; consistence, firm.

AMOUNT OF VISION PRESENT.

From the condition given of the chrystalline lens, no one would suppose that the patient enjoyed much vision, or was capable of doing more by the use of his eyes than is usual for cataract patients to be able to do; for there is no form of this disease, however intense, that of itself, entirely destroys vision. My own observation led me to believe that the patient could distinguish nothing at all, except in shaded places, and then merely by the light that passed into the eye around the margin of the lens. His statement was, that although he had good reason to believe that he could succeed in getting a pardon from the Governor, he preferred, as he was at the Prison, to stay there, and have his case treated, for, he added, he could do nothing towards making a living for himself if he was out. Before I had seen him at all, the Deputy Warden had examined him, and from the account which the patient gave to this officer, of the amount of vision he possessed, the officer reported him to the Warden of the Institution as a blind man, unsuitable to go upon any contract. An operation upon the eyes being deferred for some three months, the patient during this time was placed as an assistant in the wash-house, and afterwards in the same character in the dining-room. In

neither of these places had he vision enough to be of any service, and was consequently removed to the Hall, the common receptacle of invalids, where he performed some duties that did not necessarily involve the presence of eye-sight.

OPERATION.

On the 30th of January, some three months after the patient had entered the Institution, I operated on one eye, by the method of *displacement* called "*couching.*" The lens was firm, and there was no difficulty in carrying it below the axis of vision, and in retaining it in that position. After the operation the patient was placed on a bed, the hospital, in the part where he lay, was somewhat darkened, cold water was applied to the eyes, low diet ordered, and he was directed to keep the head still, maintain the recumbent posture, and not in any way interfere with the eye. Some two days after the operation, the patient experienced some unusual sensations in the eye operated on, and in spite of entreaties from the attendants, and my directions, he *rubbed* his eye, and continued to do so until it became highly inflamed. The inflammation involved the conjunctiva, iris, and, I think, also the vitreous humor. The inflammatory action lasted about two months, and after it subsided the pupil was found to be permanently contracted, the iris immovable; the pupil also blocked up with a bit of opake matter resembling the capsule of the lens.

SECOND OPERATION.

The *first* operation being on the *left* eye, this one was performed on the *right* eye on the 17th April following, some two months and a half after the first, by the method previously stated. While engaged in this operation, *and just after the needle had entered the eye,* the patient commenced complaining of pain and *jerked* his head violently in several directions. I ordered the attendant of the hospital, who was sustaining the head, to keep it still, and, under such circumstances, finished the operation.

At this sitting, I also operated through the cornea (keratonyxis) a second time on the left eye. Inflammation followed these operations, and the consequence was unfavorable—the patient being able to see less than before; a very common result of unsuccessful operations for cataract.

We have thus reported this case at greater length, in some re-

spects, than usual, for the reason that it serves as the basis of several important questions.

TO WHAT SHOULD THE UNSUCCESSFUL RESULT OF THIS CASE BE ATTRIBUTED?

This is a question of no easy solution. In a case of the kind before us, many contingencies are involved that it is impossible fully to appreciate. In the failure of a surgical operation, a variety of causes may be present adequate to explain the result, and yet the result may not be due to any one of them, but to some circumstance or condition, to the proper estimation of which, human powers do not, in the present state of science, extend. Could, indeed, all the causes of failure in surgical operations, or in medication, be well understood, a great advance on the world's knowledge might well be noted. The most that can be done is to try to estimate the more obvious and prominent.

Relating to the character of the disease before us and its complications, there are many things adequate to vary success. These may be *local*, involving the eye itself, or *constitutional*. The lens may be *hard*, *soft*, or *fluid*. The *displacement* of a hard lens occasions more injury to the ciliary body and vitreous humor than does the soft. Besides, it is less likely to be absorbed, lying in the eye, perhaps always, and acting as a foreign body. The *fluid* lens is most easily disposed of, and with the least danger to the integrity of other parts. The sensibility of the retina, when entirely destroyed, may be recognized in a variety of ways. But there is a *defective* sensibility, that is, in a great degree, inappreciable. Too great fluidity, or other diseases of the vitreous humor, are often equally obscure. Glaucoma was for a long time supposed to have its seat in the vitreous humor—now in the posterior part of the capsule of the chrystalline lens. Among the general or *constitutional* affections which complicate results, we may enumerate the erysipelatous diathesis, scurvy, tendency to catarrhal inflammation, chronic diseases of the skin, nervous disorders, rheumatism, syphlitic taints. The presence of any one of these troubles is capable of rendering the operation for cataract abortive.

The cause, giving rise to the disease, it may be safely presumed, exercises no little influence over the results of operations. Following ophthalmia or fever, particularly the latter, if we would judge from analogies, cataract would be less amenable to treatment than when apparently of spontaneous origin.

CAUSES OF FAILURE RELATING TO THE OPERATOR.

From the complex and delicate character of the Eye, anatomically, no one, it might safely be presumed, could do the most that might be done, unless he was not only thoroughly acquainted with the structure of the organ, but also possessed talent and experience as an operator. These, however, are pre-requisites to success, the presence of which must always be relative. The young surgeon cannot expect the success of those who are experienced. Indeed, it was the remark of one of the ablest men in ophthalmic science that has ever lived, that he "*spoiled a hat full of eyes before he learned to operate for cataract.*"

CAUSES OF FAILURE RELATING TO THE PATIENT.

Here we have as fertile a source, as any other, of bad results. To behave exactly right at the time, and after an operation, requires more intelligence and moral courage than usually falls to the lot of patients. From the intelligent and faithful, a conformity to the advice of the surgeon may be expected, but from children, who are frequently the subject of the operation, and from the uncultivated, we are only able to count on an approximation to proper conduct.

The case we have reported is an instance of *improper, reckless conduct* on the part of the patient. Two days after the first operation, as we have seen, the patient *rubbed with his knuckles* the eye operated on, which circumstance was followed by violent inflammation, that destroyed the eye. While undergoing the *second* operation he *jerked* his head violently, complaining of the pain produced by the manipulation necessary to depress the lens.

In looking over this very brief review of the causes capable of varying the result of an operation for cataract, we may repeat that they are far from being easily estimated in any given case. They may be due, as we have seen, to the character of the disease affecting the lens, to the presence of other inappreciable lesions of the eye, to constitutional disorders, to the unskilfulness of the operator, to the conduct of the patient. We will now give the result of the operation taken from works on Ophthalmic Surgery.

PROGNOSIS OF THE OPERATIONS FOR CATARACT IN GENERAL.

What *proportion* of all the cases operated on are cured? This is a very interesting question.

The following are extracts from Makenzie's Ophthalmic Surgery:

"In June 1753, La Faye, Poyet and Morand operated the same day on 19 cataracts, the two former by "extraction," though each by his own method. Morand operated by depression. Of those operated on by La Faye two saw well, two indifferently, and two received no benefit. Two of Poyet's cases saw well, two less, one could discover only day-light, and two nothing. Three of Morand's patients could see tolerably well, and three remained as dark as before.

"Mr. Sharp, in a paper read before the Royal Society, 22d Nov., 1753, gives an account of having performed the operation of extraction on 19 eyes, with about half of which he thought he had tolerable success.

"Tartra has published the results of the operations for cataract in the Hôtel Dieu, at Paris, from the commencement of 1806, to 1810, inclusively. The total number of cases was 113, 70 of which were *"extracted,"* and 43 *"displaced,"*—19 of the 70 extractions and 24 of the 43 displacements were successful,—6 extractions and 4 displacements, were followed by partial success; 8 extractions and 5 displacements were total failures, and the results of the rest were either unknown, or more or less unfavorable.

"Roux, of Paris, during the year 1830, the autumn of 1832, and the spring of 1833, operated by extraction on 179 eyes with the following results:—97 operations succeeded; 72 failed, and 10 were partially successful.

From a statement by Drs. Green and Parvin, late House Surgeons of Will's Hospital, Philadelphia, it appears that the cures constitute about four-fifths of the whole number operated on in that institution.

Such is a specimen of the data upon which to found a prognosis of the cure of cataract by an operation.

Tartra adds to his statistics his opinion, that *two* out of *five* patients operated on for cataract recover sight.

Roux's success at the *Charitè* was somewhat more than *five* out of *eight* cases operated on.

Where the cases are well selected, and those for extraction and those for displacement, are rightly distinguished, Makenzie thinks three-fourths recover useful vision; two-thirds excellent vision.

THE PROPER TIME TO OPERATE IN CATARACT.

The question as to the proper time to operate in the progress of

cataract, is one that admits of no positive solution. "In former times," says Mackenzie on page 723, "the distinction of *ripe* and *unripe* cataracts was considered of great importance. It was supposed that cataract depended upon the coagulability of a fluid, and till this process was considered to be sufficiently advanced to permit the cataract to be displaced by the needle, the disease was deemed *unripe*. If we are still to retain the terms *ripe* and *unripe* we must employ them with a different meaning. However small a cataract may be, we may call it *ripe* when it is completely developed, susceptible of no further progress, or when it deprives the patient of the power of distinguishing objects; whereas we may call it *unripe* when it is not yet fully formed, when there is a suspicion that the disease may make considerable further progress; or when the patient retains so much vision as to see the eyes of a person sitting before him; or distinguish the different articles of furniture in a room."

If we judge of the *ripeness* or *unripeness* of a cataract by the test of its having sufficient consistence to enable the operator to introduce the needle into it and carry it out of the axis of vision, cataract, at any stage, is *ripe* for an operation, because this can be done easily on a healthy eye; with the *fluid* variety displacement is generally unnecessary, nothing here being scarcely ever required except merely puncturing the capsule. If we judge of the *ripeness* of a cataract on the ground of its progress, we, at least, have to go upon hypothesis. No oculist has the means of knowing at what point the morbid process ceases. According to present knowledge, it never stops until all parts of the optical apparatus is destroyed. Again, if we make the amount of vision present the test, regardless of other circumstances, we will also have trouble. Cataract, as we have remarked, of itself, never produces entire blindness. However opake the lens may be, the patient can see more or less from light admitted into the eye at the circumference of the lens; and in shaded places, or when the iris is artificially dilated, the ability is often present to distinguish objects placed at the side of the eye of comparatively small dimensions. All things considered, therefore, it will be understood that there are few points in Ophthalmic Science more difficult to determine than the *ripeness* of a cataract. If the patient cannot see objects placed right before him in any degree of light, cannot see to go about and attend to business, has what to him was useful vision, destroyed, and there is no evidence of the active presence still of the

cause of the disease, it is the practice of the oculists of the age to regard the cataract as *ripe*.

REMEDIES FOR CATARACT.

A few cases are on record of *spontaneous* cure. The lens has been known to become detached and sink down so as not to obstruct the passage of light into the eye. Then, again, it has happened that the lens has fallen into the horizontal position, its margin being below the pupil.

Scientific men, as well as the most ignorant charlatans, have, in all ages, engaged in the attempt to cure the complaint by drugs, seatons, blisters, cauterization of the scalp, etc. Indeed, there is scarcely an article of the *materia medica*, the powers of which have not been, at some time or other, invoked; and not long since the fumes of prussic acid, by the agency of a London charlatan, obtained quite a notoriety. Electricity and galvanism have also been proposed. It has been remarked by eminent surgeons that no confidence need be reposed in any of these remedies.

Miller, in his late work, says: "Unfortunately our art has yet proved impotent in attempting to stay the progress of advancing cataract, and when it has been fairly formed, no faith need be reposed in any attempt at simple discussion of the opake structure. By operation alone can amendment be obtained."

Wharton Jones (Ophthalmic Medicine & Surgery) says: "When once begun to form, (Lenticular Cataract) it may be prognosticated that the opacity will go on to increase until useful vision is prevented in the eye; and it may also be prognosticated that the other eye, if not already, will also become affected."

Mackenzie (Practical Treatise on Diseases of the Eye) says: "In the incipient stage of Lenticular Cataract, we seldom hesitate to prognosticate, especially if the lens, itself, be the part affected, an uninterrupted increase of opacity and a decrease of vision till a perception of light and shade is all that is retained."

A question has been raised in regard to the propriety of operating on one eye effected with Cataract, the other one being sound. The weight of authority is against this practice — yet it has been supposed by able occulists that the removal of the Cataract from the eye effected, may prevent its formation in the other sound eye. Hinely says "if the occurrence of the Catarat in the second eye be due to the continued operation of the cause which produced it in the

first, there is no doubt but that Cataract when it makes its appearance in one eye ought to be operated on, although the other is perfectly sound at the time." He quotes two instances in which the removal of the opake lens from the eye first affected, arrested the progress of incipient opacity in the other eye.

Beer (Repertorium, vol. 1, page 29,) makes the following statement: "For a period of seventeen years I have closely observed those cases, in which the operation for Cataract had been performed in one eye before any sign of the disease had been noticed in the other." In all such cases I found the other eye had remained free from disease. Beer continues to add that where but one eye has been affected he has operated on it to improve the personal appearance of the patient.

Nunelly, of Leeds, remarks, "I suppose it may be granted that although a person sees sufficiently with one eye, no one will deny that *cæteris paribus*, two eyes are better than one."

When both eyes are alike affected and an operation on one proves unsuccessful, should the other eye also be operated on; or should the case be abandoned? There is really here no question at all. The same reasons which authorized a first operation also authorizes a second — the simple circumstance of a *failure* having nothing, in itself, to do with the question. Should, however, the first operation reveal in any manner the causes of failure, as for example, complications that had not been disclosed, then a question might arise as to the propriety of a second operation. The maxim is as old as human energy, "If you don't succeed in the first attempt, pick the flint and try it again."

Fœticide.—We noticed in some of our "exchanges," not long since, some remarks on the subject of "*Abortions*," which we intended to transcribe, but the Journal containing them has been mislaid. It is a matter of some doubt whether correct opinions are universally prevalent on this subject. All agree as to the criminality of interfering with an ovum after its presence in the uterus is decidedly pronounced, and also during all subsequent stages of pregnancy. But there are other points not quite so well defined.

Cases, for example, occur, where the parties are indisposed to child-bearing—perhaps it is a mother who has already had as many

children as she wants; or an unmarried woman who has been the subject of illicit intercourse. In such instances the parties are too apt to be ready to institute active measures for abortion, whenever the least evidence is present that there has been a conception. The physician is appealed to for relief, and most usually there is an attempt to account for the condition upon every hypothesis except the right one. The patient attributes her condition to "cold," to "irregularity," bad general health, etc. From the circumstance that diagnosis has, in part, often to be made up from the patient's account of things, it might seem that a question would arise here as to the course, under such circumstances, a physician should pursue. The trouble, perhaps, has only been of a fortnight's standing, only one menstrual period passed over, and to ignore the patient's views entirely, might not at first sight seem prudent.

The right course for the physician, it seems to us, in all cases of this class, is only made out from correct views on the subject of Embryology. The fact that the fœtus differs in the sources of its nutrition from an adult, or that its circulation is different, or that its head in utero is undermost, or that its body is flexed into an ovoid mass, does not destroy its identity as a living human being. From the time that it has the form merely of a cell, until it reaches the period of adult existence, it is at all periods equally entitled to protection. The circumstance that the fœtus is not, to any extent, either physically or mentally endowed, constitutes no reason why its integrity should not be regarded. Life is a series of successive developments, commencing in the simplest forms, and proceeding to the diverse and complex. Take away the first link, and the chain is destroyed.

Artesian Well.—The Legislature has authorized the State House Commissioners to sink an *Artesian Well* on the Public Square grounds. With respect to its practicability, there is some diversity of opinion. A good supply of pure water, however, is a matter of sufficient consequence to justify an experiment. Those most conversant with the strata, underlaying this region, think it probable that water may be obtained at a depth of 600 or 800 feet. The Artesian wells at Bryan, Ohio, an account of which was published in the March No. of this Journal, are only 15 or 20 feet in depth, the water in some instances rising an equal distance above the

surface. At Artois, in France, where the practice of boring for wells of this character originated, the wells are also very shallow. In London the water-bearing stratum is sometimes blue clay, sometimes chalk. In either instance the depth of the wells seldom exceed 500 feet, often not more than 300. At Toulouse, in France, the borings extended to the depth of 1200 feet without success.

The causes of failure of Artesian wells are numerous. The more frequent perhaps are rents and faults which abound in some rocks, deep ravines and valleys in the vicinity, or dips of strata that serve to conduct the water toward a trough in a direction opposite its source.

Our people are under great obligations to those gentlemen who have been instrumental in setting this enterprise on foot. It is a measure that has had its origin in enlarged and liberal views.

Microscopes.—The firm of Riley & Co., of this city, have on hand several Microscopes of English and German manufacture, that are good working instruments, and well adapted to practical purposes. They range in power from 200 to 500 diameters. Price, from $35 to $65.

Hungarian Leeches.—One of our Druggists, J. Schueller, (High street, between Friend and Mound) keeps constantly on hand a supply of Leeches, and will be happy to receive orders from the city or the interior.

Reviews.—In this No. we have reviews of the works of Holland, Lacock and Bartlett. These works are all on subjects of great interest. The first two, designed to cultivate the faculties of observation and reason; the other one, is a very lucid and concise exposition of what is known in regard to Fever.

Holland's "Notes and Reflections" and Lacock's "Observations," should have a general reading. No books have lately made their appearance that were more needed. They will tend to give accurate and comprehensive views of Medical Science.

METAMORPHOSIS OF MIND IN REGARD TO QUACKERY.—On first entering the profession, after having spent years of labor, and been subjected to privations that destroy health; and after having heard teachers describe the arduous, delicate and responsible duties of the medical man, the young physician, like as not, has for his first competitor in business, an errant Quack, ignorant and unprincipled. The first impulse that the young man has under such circumstances is, most probably, one of anger. He gets *mad* when he sees the movements of the Quack, and the way the latter is surrounded with adherents and friends. After a while this emotion passes off, and the physician begins to predicate something on the circumstance that human beings are all endowed with more or less of that article which we call reason; and that if this is properly appealed to—if the people are reasoned with they can be made sensible of their error, and in this way the Quack may be routed. This plan, so plausible in itself, is at once adopted, and the physician goes to work to make the experiment. Interviews are sought for with all the principal men of the neighborhood, and with the intelligent also of the other sex. An experiment or two, however, convinces the physician that, after all his philosophy, he is about to fall short of his object; and and he finds it just about as easy to make M. D.'s out of the people as it is to make them understand an argument founded on a medical subject. His eyes, indeed, are now, for the first time, opened to the fact that a medical argument can only be understood by one well versed in the principles, facts and events of medical science, and, as a consequence, he abandons this plan of reforming the people. What next? The physician ceases his efforts and cogitates again to himself—and while in this mood, doing nothing at all except attending to his books, or patients when he has any, a new light is discovered. He now gets a glimpse of a great truth—one confirmed by almost universal experience, viz: that the quickest and surest way to kill off a Quack is the plan that the Quack himself unconsciously institutes for that purpose, and that any effort that the physician makes, looking to the same result, only has the effect to procrastinate the time of death. Arrived at this period, having passed regularly through all the stages of the metamorphosis, the young physician is now something of a philosopher.

Small Pox.—This disease has been somewhat more rife the past winter than for several years. It is confined mostly to the interior, and in many localtties, a very large proportion of the population has suffered. Until within a few days our city has been exempt. At present, however, the disease has attained but slight prevalence. Extensive observations lately made, and the protection afforded by *vaccination*, seem to point out very decidedly the propriety of repeating the process at certain intervals.

Assistant Editor.—The name of our Assistant Editor, Dr. R. Gundry, M. D., disappears from our cover in this issue. Dr. Gundry has gone to Dayton to help our old friend Dr. McIllhenny take care of the Lunatics. We shall feel sensibly the loss of the ready and able pen of our Assistant. Nevertheless, we congratulate the Institution with which he has connected himself, as having secured the employment of talents that are searce.

On the Functions of the Supra Renal Capsules. By Dr. Brown-Sequard.

We are indebted to our contemporaries of the Boston Medical and Surgical Journal for the following resumé of Dr. Brown-Séquard's researches on the functions of the supra-renal capsules. This well known physiologist remarked, that these two small organs, lying in immediate connection with the kidneys, have been considered very unimportant until within a few years. Now it is found that when they are removed from the body of a living animal, there occurs a very great change in the blood, and the animal dies in a very short time. There is found to be an accumulation of pigment in the blood, and a peculiar form of crystals, not having the chemical reactions of hæmatoidine.

In answer to an inquiry, if the real use of these capsules was known, M. Séquard replied that his hypothesis was, that the function of the supra-renal capsules was to prevent the formation of pigment in the blood, and he thinks he has isolated a substance from the blood which would be changed into pigment without the agency of these or-

gans. This substance, perhaps, may be produced in such a quantity that the capsules cannot destroy it, even when they are in a healthy state. In the disease described a short time since by Dr. Addison of London, and known as bronzed-skin disease, the coloring matter of the skin, examined under the microscope, proves to be the same as that of the negro's skin. And, as in the blood, in the same disease, there are found pigment cells, pigment granules contained in a peculiar substance, and certain crystals referred to above, he thought there was some ground for the inference that these organs are pigment-destroying agents. He had seen the crystalline plates sufficiently large to become impacted in the smaller vessels and to prevent the circulation of the blood, and consequently he believed if they were not the primary cause of many disturbances of the nervous influence, they were at least a partial cause.—*Virginia Med. Journal.*

On the Distinctions between Miasmatic and Contagious Diseases. By Dr. Muhry.

Miasmatic diseases are found (1.) to be dependent upon soil and moisture, temperature and time of year, like vegetation. 2. They often attack and exert their influence suddenly, immediately after their invasion, without any long, regular period of incubation, like a poison. 3. They may also repeatedly and chronically affect the same individual without diminution of their power. 4. They are not regenerated in the human economy.

Contageous diseases (1.) are found to be completely independent of soil, as also, with some exceptions, of temperature and time of the year. 2. They always exert their influence during a long regular period of incrementum or incubation. 3. They occur, for the most part, only once in the same individual, or recur only after a long interval. 4. They are regenerated in the animal economy only.

The relations of the contagious diseases to temperature, with respect to their geographical distribution, may be further indicated as follows: 1. The majority, as stated above, are ubiquitous, that is, are independent of temperature, and in our temperate and cold zones are independent of, or only slightly dependent on, periods of the year. These are variola, scarlatina, rubeola, pertussis, mumps, aphthæ, puerperal metritis, roseola, hospital gangrene, malignant

pustule, and, perhaps, miliaria and pemphigus. 2. Thôse which are dependent upon temperature, and also upon the periods of the year, may be thus distinguished.: (1.) Those which thrive especially in high temperatures and under the tropics, as lepra, frambœsia, dysentery, and aphthæ. 2. Those which especially prevail in a cold temperature and the polar zone, as erysipelas, puerperal metritis, croup and pertusis. 3. Those which especially prevail between the highest and lowest temperatures, between the tropical and polar zones, as the plague and typhus.—*Henle and Pfeufer.*

On the Characteristics of Strychnia Tetanus. By Dr. R. Adams, Surgeon to the Richmond Hospital.

In a paper containing an account of a case of suicidal poisoning by strychnia, Dr. Adams draws the following comparison between ordinary tetanus and strychnia tetanus:

1. Strychnia tetanus resembles ordinary tetanus in its spasms, particularly when they assume, as they frequently do, the form of opisthotonos.

2. A rigid condition of the muscles exists in both cases, not only during the actual paroxysms, but also during the intervals between them.

3. Strychnia tetanus, in its progress to a fatal result, is much more rapid in its course than ordinary tetanus.

4. The commencement of this last is silent, and the expression of the countenance is peculiar and characteristic.

5. The beginning of the former is announced by loud and repeated screams and moanings.

6. The hands in strychnia tetanus are early and severely affected; in ordinary tetanus the hands are the parts of all others the last and least affected.—*Medical Times and Gazette.*

Falling off of the Hair.—Dr. Landerer considers it an error to mix substances intended to strengthen the hair in oils or fatty bodies, in which they are not soluble, and are so enveloped that they can exert no influence upon the relaxed skin. Thus five grains of quinine taken internally, or ten grains used in a lotion endermically,

will exert more influence than half an ounce employed in an ointment. He has found great benefit from rubbing a watery solution of tannin into the roots of the hair. The modern Greeks employ a decoction of the root of the atractylis gummifera, the chamaleon leucos of Dioscorides.—*Buchner's Repert.*

Radical cure of Varicose Veins.—A case at present in King's College Hospital, under the care of Mr. Henry Lee, illustrates the advantages of a plan recently invented by him for the radical cure of varicose veins. The patient is a female, of middle age, who had been suffering from great distension of the saphena vein in two places. The trunk of the vein was much enlarged about the thigh, and a cluster of varicose veins existed at the upper part of the calf. There was also a small ulcer on the leg.

The plan adopted by Mr. Lee is as follows: Two needles were passed underneath the enlarged vein, at a distance of about two inches from each other, and a suture twisted around each. Care was taken not to wound the trunk of the vein itself. This proceeding was followed by adhesive inflammation around the part operated on, whereby the trunk of the vein was obliterated by coagulum. Three days after the passing of the needles, the vein was divided by a subcutaneous incision midway between the needles, and slight pressure applied by means of a pad of lint. On the fifth day the needles were withdrawn. The operation succeeded completely at both points; and, ten days afterwards, the patient was completely well, and able to leave the hospital, so far as respected the disease for which she originally applied for admission. She was kept in, however, on another account. When seen, seventeen days after the commencement of the treatment, the vein appeared to be permanently obliterated at both points; the depressions corresponding to the points of section being quite perceptible, and the vessel above and below reduced to a solid cord, which was steadily shrinking from its original size. The ulcer was cured.

This method appears to unite the advantages of the two spoken of by Sir B. Brodie in his *Lectures on Pathology and Surgery*, pp. 189, 190, as having been adopted by himself and M. Velpeau, respectively, for the cure of varicose veins by subcutaneous incision and by ligature. The adhesive inflammation which follows the applica-

tion of the ligatures renders the subsequent subcutaneous incision of the vein a perfectly safe proceeding, as the absence of hemorrhage much increases the prospect of union of the little wound by first intention; and even if it, or the needle-tracks, should suppurate, there is no chance of the passage of matter into the venous circulation, in consequence of the interposition of a considerable clot between each of these and the heart; besides which the tracks of the needles are external to the canal of the vessel. Whether the cure will be permanent is a point which can of course only be determined by subsequent observation; even if not, the patient is for the present delivered from a very annoying infirmity, and has probably a long interval of health, at the expense of a treatment which appears neither painful, dangerous, nor protracted.—*British Med. Jour*, Jan. 31, 1857.

Biniodide of Mercury in certain forms of Epilepsy.—At St. George's Hospital, Dr. Fuller frequently uses the biniodide of mercury, and speaks of the great success he has obtained from it. Two cases of epilepsy at present under his care at the hospital may be quoted in his exemplification. The one is that of a boy, 18 years of age, who came under Dr. Fuller's care about the middle of last November; the other, that of a man at 44, who was admitted a patient in the middle of December. The boy, a plumber by trade, had fractured his skull fifteen months before admission, and began to suffer from epilepsy seven months afterwards. The man, a laborer, fell from a height of thirty feet on to his head nine years ago; had been more or less deaf with the right ear ever since, and began to suffer from epilepsy three years ago. There had been no discharge from the ear, and no decided headache. In both cases, Dr. Fuller attributed the fits to chronic thickening of the dura mater, or, possibly, deposit between it and the bone, the result of the injury. To the boy he gave the biniodide of mercury, and did not have recourse to any local treatment. To the man he also administered the biniodide; but in consequence of the increasing frequency of his attacks, and the gradually increasing deafness, made use at the same time of a seton in the neck. Since the first week of the administration of the remedies neither of these patients experienced the slightest return of the fits. The boy feels quite well, and the man's deafness has greatly decreased. Nevertheless, Dr. Fuller directed that they

should continue the remedies for at least another month or six weeks, with the view of completing the removal of the thickening to which he believes the fits to be attributable. Dr. Fuller administers the medicine in a state of solution, and believes that to this circumstance is, in a great measure, due the success which has attended its exhibition. The scarlet red biniodide usually employed in medicine, is insoluble in water, and when administered in pills is on that account comparatively inert; whereas, the biniodide, as given by Dr. Fuller, is perfectly soluble, forms a colorless solution, is readily absorbed, and speedily produces its specific effects. The solution is formed extemporarily by the addition of from five to ten grains of iodide of potassium to 3j or 3ij of the liquor of hydrargyri bichloridum. In cases such as those above alluded to, Dr. Fuller gives it uncombined with other remedies; whilst in cachectic rheumatism, accompanied by periosteal swelling, he usually combines it with bark and sarsaparilla. In his work on *Rheumatism, Rheumatic Gout, and Sciatica*, 2d ed., p. 413, he says: "The biniodide of mercury kept in solution by an excess of iodide of potassium has proved in my hands the most valuable of all medicines in rheumatism which has supervened in a system tainted by the syphilitic poison, and in several instances has effected a cure after the bichloride had been given in vain." About a month ago we directed attention to its successful employment by Dr. Fuller in cases of deafness supervening on rheumatism, consequent, as he supposed, on some thickening and rigidity about the structures connected with the organ of hearing. He speaks so highly of the good effect of the remedy in so many cases attended by thickening or by periosteal swelling, that he confidently recommends a trial of it in appropriate cases.—*Med. Times and Gaz.* Feb. 14, 1857.

Puerperal Fever.—In his report on the sanitary condition of St. Pancras during December, Dr. Hillier remarks as follows on two cases of puerperal fever in the work-house: "There have been two deaths from puerperal fever, and several persons are now suffering from it. This disease is of a most infectious character, and when once it has gained access to a lying-in-ward, it clings to it with remarkable tenacity for some time, in spite of all disinfectants. As soon as the disease made its appearance, Mr. Coster, the senior surgeon, with the utmost promptitude, used all precautionary meas-

ures to prevent its extension: such as the complete isolation of the patients suffering from it; preventing the nurses who attend on them from coming near other parturient women; the entire change of linen and beds; and placing all persons about to be confined, in a distant part of the building. The disease, however, is not yet eradicated. It is the intention of the Directors not to allow any nurse, who has been near the patients with puerperal fever, to attend lying-in women for three weeks. The resident surgeons will not attend any other accouchements for the same period; and all fresh cases of labor will, if possible, be kept at their own houses, or sent to lying-in hospitals. This disease frequently co-exists with erysipelas, and it will be remembered that, in my last report, I stated that this disease was prevalent in the house, as it is also at the present time." It would be well if such precautions were adopted more frequently.—*Med. Times and Gaz.*, Jan. 24, 1857.

Solution of Phosphoric Acid in Typhus.—Prof. Magnus Huss recommends the following solution of phosphoric acid in the first stage of typhus, both in the abdominal and petechial forms: R.—Solution of phosphoric acid, two and a quarter ounces; Decoction of marshmallow, five ounces; Syrup of marshmallow, four ounces.—Mix. Dose from ten to fifteen drops every two hours. The solution contains twenty-five per cent. of phosphoric acid.—*Presse Méd. Belge*, 6th Sept., 1856.

Dr. Mutter and the Philadelphia College of Physicians.—In the number of this Journal in July last (p. 112,) we announced the liberal offer made by Dr. Mutter to the Philadelphia College of Physicians, and in a subsequent number (Nov. 1856, p. 159,) we expressed our regret that Dr. Mutter had failed to complete the arrangement.

We have recently received from Dr. Mutter the following communication, in which he offers an explanation of the causes which prevented his doing so at the time, and expressed his design of hereafter effecting it.

Nice, December 29, 1856.

To the Editor of the Medical News.

Sir:—a medical friend, *not* a resident of Philadelphia, has kindly

sent me an extract from the *Medical News*, of the 13th of November last, which extract conveys a grave charge against myself, and which, as I shall endeavor to show, is both unjust and uncalled for.

In order to render my assertion obvious, it will be necessary for me briefly to rehearse the history of the business to which the extract refers,

It is well known to the medical profession of Philadelphia, that last spring, finding myself compelled by ill-health to resign my chair in the Jefferson College, and to leave the country, for a time at least, in search of a milder climate, I made a proposition to the "College of Physicians" of Philadelphia, to receive my museum, and to allow me to found in connection with that institution a school for pathological research, open to all regularly educated medical men and students of medicine, free of cost. The College entertained the proposition, and appointed a committee to confer with me upon the articles of the project. This committee, late in July, or early in August (not having the paper by me, I cannot specify the exact date,) addressed to me through their chairman, Dr. Geo. B. Wood, a set of propositions essentially modifying those submitted by myself to the College. As there seemed at the time no objections to these modifications, I wrote Dr. Wood to the effect, that I would accept them as the basis of a future contract between the College and myself. Upon subsequent examination, however, it appeared both to the committee and myself, that these propositions might, advantageously to both parties, undergo considerable alterations. At last, by our united efforts, a set of articles, perfectly satisfactory, were drawn up. It then only remained for me to hand over certain securities named, to the trustees agreed upon, and for the College to meet, in order to ratify the acts of their committee. But now a serious difficulty presented itself. *Want of time properly to effect our object.* Although *it was in the spring* that my offer was made to the College, *it was not until the last two weeks of September* that the committee and myself were able, owing to absence from the city, to work together, and it was only *four* days before my sailing for Europe, that everything was completed.

I was notified of the satisfactory conclusion of our negotiations on the very day, when, in order to sail as I proposed, on the first of October, it was necessary that I should leave for New York.

It will thus be observed, that *for the transfer of the property which I proposed to convey, and for the meeting of the College to ratify our*

acts, only four days, of which one was Sunday, remained. This period as is obvious, was too short for the accomplishment of our object, besides which, I was *compelled*, as before stated, by other matters of equal or greater importance, to leave the city. Under these circumstances I was forced to allow our affairs to remain unsettled, and I wrote to Dr. Wood to that effect, at the same time expressing my regret at the failure of all our efforts. On leaving my house for the steamboat, I met Dr. Norris, one of the committee, and also expressed to him my difficulty and my sorrow. My colleague, Dr. Bache, will also testify that I remained *three days over the period* when I should have left Philadelphia, and that I expressed to him my fears and regrets that we should not have time to complete our arrangements.

In conclusion, to prove how deeply I was and am still interested in the work, as soon as possible on my arrival in New York, I obtained the services of Mr. Cram, attorney at law, to arrange my will, and he is ready to testify that the *first item* in that paper, directs my executors, in case of my death, to hand over, before the payment of any other legacy, the sum of $30,000 to the trustees agreed upon between the College and myself, and expresses my earnest desire that the arrangements made between us should be carried out. This, and other business, kept me constantly occupied until after midnight, the last day of September, when exhausted by watching and indisposition, I was unable to write to Philadelphia, and sailed the next morning, the 1st of October, at 9 o'clock. On arriving in Liverpool, I dispatched a letter, at once, to Dr. Wood, informing him of what I had done, and requesting him to read it to the College, and also promised that I would leave nothing undone to accomplish the chief object of my professional life.

It will be seen from the foregoing that I have, in every way, endeavored to carry out my promise to the College. In case of my death, the money will be offered to the Institution by my executors, and I pledge myself, should I live to return home, to hand over the sum specified to the trustees, provided the College is ready to receive it upon the terms already arranged between us.

Had the article in the *Medical News* read thus: "The College, after due consideration, accepted the trust, but we regret that, in consequence of Dr. Mütter's hurried departure for Europe, which prevented the accomplishment of all the details of the contract between the College and himself, the negotiations failed for the

present," it would have conveyed the truth, and at the same time have spared the imputation of *want of faith.*

I have been deeply wounded and mortified by this article in question, and I am sure nothing more, under the circumstances, could have been done on my part to further the object, which has been my most earnest desire, for many years, to see accomplished.

THOS. D. MUTTER.

EXTRACTION *versus* DEPRESSION.— An opportunity for contrasting the results of extraction and depression operations for cataract was afforded by a patient at the Moorfields Ophthalmic, under Mr. Critchett's care, a few weeks ago. A woman, of about 45, had had depression performed in the left eye by another surgeon two years ago, and had subsequently had her right lens extracted by Mr. Critchett. Both operations had been perfect in their kind, but the right had become so much the more useful eye, and so great was the annoyance to sight caused by the depressed lens in the left, that she was anxious to have extraction performed in it also. The lens, which was very opake, lay quite below the pupil, and the latter was clear; but, from the movements of the former, much interference with wision resulted. No irritation had apparently been caused, and the visual powers of the eye were as good as ever. At the woman's own request, Mr. Critchett performed extraction, and hooked up the lens and removed it, the operation not being attended with any difficulty. It was interesting to observe that the lens, although for two years freed from its capsule, and displaced into the vitreous humor, had undergone almost no diminution. It was chalky in parts, and in others of a hard, gelatinous structure. Its non-absorption might be held to illustrate one of two things: either that a lens, in the condition described, is insusceptible of absorption, or that the vitreous humor does not possess any absorptive activity.

We may remark, that depression of cataract is an operation now very rarely, indeed, performed at Moorfields, partly from the conviction that, as shown in this instance, the sight so obtained is not so perfect as that after extraction; but more chiefly, because a belief is entertained that the eyes do not last, irritation being caused by the displaced lens communicated to the ciliary processes, and then to the retina, and ending in a few years in amaurosis.— *Med. Times and Gaz.*, Dec. 13, 1856.

Reduction of old Dislocation of the Humerus by Manipular Movement, without Extension.—In a case recently under his care in St. Bartholomew's, in which a very fat woman was the patient, Mr. Wormald succeeded in reducing an old (six weeks) dislocation of the humerus by manipular movements, without extension, on the principle now almost universally adopted with those of the femur. The humerus differs from the femur in having an almost straight shaft up to its articular end, and no leverage can therefore be obtained, as in the case of the head of the femur, which is almost at right angles to its shaft. By bandaging a rectangular splint to the arm and fore-arm, Mr. Wormald made the latter into a lever, by which to act upon the former. The operator's knee being put under the patient's elbow as a fulcrum, the fore-arm was depressed, and the bone lifted into its place. The patient was under chloroform, and reduction occupied only about ten minutes. For ordinary cases this plan will, of course, not supersede the very simple and effectual ones already in use, but in those difficult of reduction is worth being had recourse to.—*Med. Times and Gaz.*, Feb. 7, 1857.

Operations for Femoral Hernia without opening the Fascia Propria.—Within the last few years it has become the custom with several surgeons, among whom we may mention Mr. Birkett, of Gay's, to avoid opening not only the sac but also the fascia propria in cases of femoral hernia, when such may be practicable. We saw Mr. Birkett operate on a woman the other day by that method. Gimbernat's ligament was readily reached when the cribriform fascia had been divided, and having been notched the gut easily returned. An objection to the plan sometimes made is, that the sac and fascia constitute together a mass of some thickness, in which it is just possible a small portion of bowel might be concealed. Such an objection lies with threefold force against all reductions by the taxis, The rule now almost established in herniotomy seems to be to divide as little as possible, that is, to make the reduction differ as little as may be from one by the taxis without division of the structure. By leaving the sac covered and protected by the fascia propria, the risk caused directly by the operation amounts to little more than a wound of the skin, and the risk of peritonitis must be somewhat diminished.—*Ibid.*

Removal of Tumours by a New Method.—Dr. Simpson, of Edinburgh, has been experimenting on the removal of tumours by a method novel in this country. He introduces a hollow acupuncture needle, or very fine trocar, into their tissue, and injects a few drops of some irritant liquid—such as a solution of chloride of zinc, perchloride of iron, or creasote. The effect has been to destroy the vitality of the tumours so treated, and they have been separated by a procoss of enucleation. We have seen a somewhat similar plan adopted in Paris by M. Maisonneuve. He has a slender stylets made of a paste composed of flour, water, and chloride of zinc. These are baked. A puncture is made in the tumour, the caustic stylet is inserted, broken off, and left. We saw several malignant tumours treated in this manner, and some cases in which a healthy granulating surface was left after the separation of tumors which had been destroyed in this manner.—*Medical Times and Gazette*, Feb. 7, 1857.

Rare form of Fracture of the Neck of the Humerus.—A muscular young man has just been discharged from St. Mary's Hospital, where he had been for some time under the care of Mr. Coulson, on account of an unusual injury to the left shoulder. At the time of admission it was diagnosed as a fracture of the neck of the humerus, with, possibly, dislocation of the head forwards. Crepitus was felt distinctly, and the symmetry could, without much difficulty, be restored, but the bone could not be retained in place. All appliances to secure coaptation failed, and he now has (ten weeks after) marked deformity. The motions of the shoulder are, however, good, and he will probably in time regain almost perfect use of it. The opinion now entertained is that it has been a fracture through the anatomical neck, with a splitting of the upper part of the shaft. As it has united there is a decided prominence of the anterior part of the shaft at its upper end; indeed the bone appears to be much widened. The articular head is evidently in the glenoid cavity. The arm is about half an inch shorter than the other. Mr. Coulson has adopted the plan, which it is much to be wished were general, of giving to the lad a written statement of what the supposed injury has been, so that should he come under care for any subsequent accident the surgeon will have an invaluable guide in treatment; or should an opportunity be afforded for dissection of the part, it may not be lost for want of attention being drawn to it.—*Ibid.*

Compression Treatment of Aneurism — Cure under Unusual Circumstances.— A case has been recently treated by Mr. Lawrence, in St. Bartholomew's Hospital, in which a popoliteal aneurism solidified under unusual circumstances. The patient was a robust young man of 27, and the tumor about the size of half an orange. The compressson was commenced with a common Signorini's tourniquet, and was cautiously pursued, the stream of blood through the tumour being retarded merely, and not nearly arrested. This had been done for about seventy-six hours, and the man having suffered no inconvenience, the tourniquet was screwed tighter. On Mr. Lawrence's visit, the day following, the man complained of pain in the tumour; and fearing inflammation of the sac, Mr. Lawrence ordered the immediate disuse of all compression. The pulsation, although not so powerful as at first, was still very distinct. Within a few days of the laying aside of the compression, however, all pulsation ceased; the tumour afterwards rapidly absorbed, and a perfected cure resulted. In attempting to explain the occurrence of consolidation under these circumstances, the conjecture seems not improbable that the impaction of a portion of fibrin in the distal trunk had been the cause of the pain in the tumour of which the man complained; and that this in itself, not at first sufficient to occlude the vessel, had subsequently become coated with lymph, and finally acted as a plug.—*Med. Times and Gaz.*, Dec. 13, 1856.

Statistics of Population of France.— The returns show that France possessed, in 1856, 36,039,354 inhabitants, while, in 1852, the number was 35,781,628. They consequently represent an increase of 257,736 inhabitants during the last five years. The mortality, which was one in every 25 inhabitants in 1772, was only one in every 44 in the year 1844. It therefore ensues that mortality has diminished to the extent of three-quarters in the space of 72 years.— *Med. Times and Gaz.*, Jan. 24, 1857.

Chloroform in Sea-Sickness.— Dr. Landerer, a medical man at Athens, announces that he has discovered a specific against seasickness, viz: to give from ten to twelve drops of chloroform in water. He says the chloroform, in most cases, removes nausea, and

persons who have taken the remedy soon become able to stand up, and get accustomed to the movement of the vessel. Should the sickness return, a fresh dose is to be taken. It was tried on twenty passengers on a very rough voyage from Zea to Athens, and all, with the exception of two, were cured by one dose. The minority, two ladies, were able to resist the feeling of illness on taking a second dose.— *Med. Times and Gaz.*, Jan. 24, 1857.

Cancer Caustics.—These are the order of the day. Go where we will, chloride of zinc, sulphate of zinc, the chlorides of antimony and iron, and their action on cancer, are the subjects of conversation. Dr. Simpson's caustic and a weak solution of chloride of zinc are being tried extensively both in public and private. Mr. Moullin has used the chloride of zinc in a less dilute form, and brought before the Medical Society last Saturday, two tumours of the breast he had so removed, the one of 8 years', the other of 20 years' standing. Both cases were patients of the Westbourne Dispensary. The chloride of zinc was applied after the integuments covering the entire tumour had been destroyed by the application of nitric acid. It was used in the form of a thin paste, made of equal parts of the chloride and thick mucilage, and spread upon linen. It was applied over the whole raw surface, and covered with cotton, which was allowed to remain till next day. The dressing being then removed, incisions were made to the depth of the destroyed part (about one-eighth of an inch,) and one-third of an inch apart from each other. These caused no pain. The chloride of zinc paste, now spread upon strips of linen, was inserted in each incision, and covered over with cotton. One hour after the dressing the patient began to feel a sensation of heat in the part, which lasted for three or four hours, not at any time amounting to pain. She slept well. Next day the same process was repeated, and continued for fifteen successive mornings, when the whole tumour was destroyed. Separation now commenced, and on the thirty-third from the first application, the tumour fell out, leaving a perfectly healthy surface, which gradually healed, and is now quite sound. The history of the other case is much the same, except that in the second there was a large fungous growth on the upper part of the breast, which was also completely destroyed, after fourteen dressings, and enucleated in forty days, having the same healthy appearance as the former, and

progressing equally well. Mr. Moullin stated that Mr. Haviland had assisted him in these cases. The results of this treatment are very similar to those obtained by Dr. Fell, and the scoring of the slough is a practice very probably in imitation of the American Doctor. The tumours are doubtless removed, and the resulting cicatrix is firm, but whether the patient is in so good or a better condition than if the tumour had been removed by the knife, is quite another question.—*Medical Times and Gazette*, Feb. 14, 1857.

[In connection with the above remarks, we commend to the attention of the reader the following just observations from an editorial article in a late number of the *British Medical Journal*, February 7, 1857. They place the subject of the cure of cancer in its true light:—]

"Cancer is something more than a local disease. What is the value of his life, in whom the smallest item of cancer exists? How long do they live from whose bodies cancer-masses have been removed? Removing the local disease, then, is not curing cancer. This is all trite enough. Now, Dr. Fell does not, we presume, pretend to do more than to attack the local disease. He does then just that which, heretofore and now, surgeons have done and do. But his method contains an especial virtue, and its speciality lies in this, that his means of ablation act more surely, safely, pleasantly, and completely, than do those means heretofore used for the removal of the tumour, viz: the knife and ordinary caustics.

Here, then, is the fact reduced to its simplest terms, and stripped of all hazy romance. The situation of Dr. Fell before the profession is clear and definite. *He has no new cure for cancer, but only a new method of removing the local tumour*—one more perfect and effective than the methods in daily use."

Prizes at the Imperial Academy of Sciences of France.

The Academy has decreed its Cuvier prize to Prof. Owen, for his Researches in Anatomy and Physiology. The prize for experimental Physiology of 2,000 francs has been decreed to Dr. Waller, an Englishman settled at Bonn, for his researches on the Spinal Ganglin. For his discovery of the application of amorphous phosphorous to the manufacture of lucifer matches, the Academy has awarded a prize of 2,500 francs to M. Schrotter. In the department of medi-

cine and surgery, the Montyon prizes of 2,000 francs each have been awarded to Dr. Simpson for the introduction of chlorform into surgical and obstetrical practice; to M. Malgaine for his work on fractures and dislocations; to M. Jules Guerin, for having generalized the subcutaneous method; and to M. Stilling for his microscopical researches upon the spinal cord. Numerous other rewards of 1,000 francs have been adjudged, and amongst others to M. Middeldorpff, for the employment of the electrical current as a means of cauterization; to M. Brown Sequard for his observations upon the results of lesions of the spinal marrow; to M. Boinet for his researches on iodine injections in disease of the ovary; to M. Guillon for his mode of dilating strictures of the urethra; to M. Faux, for his researches on asphyxia; and M. Philippaux, for his new views on the action of caustics. The grand prize proposed by the Academy of Physical Sciences for 1847, and postponed in 1849 and 1853, and 1856, having for its subject the development of the embryo, has now been decreed to M. Lereboullet, of Strasburg; and another grand prize—subject, the distribution of organic fossils in the tertiary strata—has been decreed to M. Brown, of Heidelberg.

The next Alhumbert prize of a gold medal, 2,500 franes in value, will be for the following subject: "The fecundation of the ova, and the structure of the organs of generation in the principal natural groups of the class of Polypi, or of that of the Acalephæ.

The *Breant Legacy* of 100,000 francs has been left for the foundation of a prize, to be decreed to whoever discovers the causes or the means of cure of the cholera. Until the prize is adjudged, the interest of the capital is to be given to whoever may be deemed to have advanced our knowledge respecting cholera or other epidemic disease, or to any one who will point out the means of radically curing *dartress.*—*Med. Times and Gazette*, Feb. 14, 1857.

London Sausages.—London sausages including the subdivisions of saveloys, black puddings, and polonies, have always been regarded as somewhat dubious articles of food; being neither fish, flesh, fowl, nor good red herring. The process of their manufacture has been described as equivalent to a practical illustration of the adage, "Give a dog a bad name and hang him." Horses, dogs, and cats are reputed to startle with prophetic dread at the sound of a sausage-machine; and writers on instinct can adduce no parallel incident to

that recorded by the disconsolate sportsman, who, whilst regretfully whistling the summons of his lost Ponto, observed some sausages in a neighboring window simultaneously wagging thsir tails.

We have lately learned that these insinuations present the proceedings of London sausage-makers in a rather favorable light. It appears that they consider tender young horse-flesh, the meat of a defunct poodle, or the mortal remains of a cat that has departed her ninth life, as

"Too good
For human nature's daily food."

It is their custom, as reported by one of themselves, to convert into sausages meat entirely unfit for human consumption; whether rendered putrid by keeping, or unwholesome by the diseased condition of the animal which supplied it.

Our information concerning the poisonous influence of diseased or tainted meat has hitherto been principally derived from continental sources. This is not due to any supreminent honesty on the part of our British dealers, but to the absence of any effectual system of medical police in this country, until the appointment last year of the Medical Officers of Health. One of these gentlemen—Dr. Aldis, of St. George's Hanover Square District—recently applied to the magistrate for an order to burn or bury a quantity of offensive and putrid meat (amounting to a hundred weight and a half,) lying on the premises of a sausage-maker in Grosvenor Row, Pimlico, which was being converted into sausages. Dr. Aldis and one of his inspectors described the filthy state of the meat. The defendant then observed, "It would be quite useless for him to think of carrying on business if proceedings like the present were to be taken against him, for there was not a sausage-maker in London but where the same description of meat was used.

As regards this man personally, we may remark, that it is possible society would recover the shock, even if he were to shut up shop.

Now, the experiments of Gaspard and Magendie have proved that putrid animal matter introduced into the system of healthy animals induced a disease closely resembling the typhoid fever of man; and Dr. Christison records a case where the lives of a whole family were jeopardized, and one of its members died, from partaking of broth made from meat like that above described. Amongst our London poor, who consume the abominable garbage of which, according to

the above statement, cheap sausages are composed, it is not unusual to meet with cases of fever, the cause of which is involved in mystery; and it is impossible to believe that putrid meat, however spiced, may be eaten with impunity, especially by a half-starved human being, living in a vitiated atmosphere, and often with a gin-sodden constitution.

More than this, there occasionally occur, amongst our poor, cases of disease of a most anamalous kind, and presenting many of those indefinite symptoms which accompany the disease recognized in Germany as due to unwholesome sausages, and distinguished as a special kind of poison: In Wirtemburg, there occurred, in twenty years, 152 cases, distinctly traced to the "sausage poison;" and of these 84 died. In districts where the sausages are eaten fresh, the disease is correspondingly rare. The symptoms are slow in progress and most indefinite: abdominal pains; tormina; oppressed respiration; irregular action of the heart; constipation, sometimes alternating with diarrhœa; diminution of the secretions and of nervous energy; a hoarse voice and frequent cough; a cold skin, with the hands and feet dry and hot. These are laid down as the most marked symptoms due to the influence of the animal poison, and which wear away the thread of life until death finally ensues from syncope. Now it is in no way proved that the sausage poison of Germany is confined to that country. On the other hand, we have it stated by a manufacturer, that the putrefaction most likely to generate a poisonous condition is the normal state of the sausages supplied for the food of the poor of London. The subject is one deserving earnest attention; especially as we are warned that the terrible murrain which in 1745 destroyed 80,000 cattle in one year, is now approaching our shores. It is evident that the conscientious folks who cut up decomposed flesh into sausages would be little likely to feel any qualms of conscience about the conversion of diseased meat, to the same purpose.—*Lencet*, Feb. 28, 1857.

Congress of Oculists at Brussels.—Brussels has of late become famous for its congresses on educational and statistical questions; and now we find one proposed for the ophthalmologist. They are invited by a committee composed of the following members: MM. Fallot, Bosch, Hairion, Van Roosbrœck, and Warlomont. It is inten-

ded that the meetings should take place on the 13th, 14th, 15th, and 16th of September next, *i. e.*, immediately prior to that of the German Scientific Association, to be held this year at Bonn, on the 18th. Besides various other topics which will be brought under discussion, Military Ophthalmia, and the employment of the Ophthalmascope, are to hold prominent places. All communications favorable to this project are to be addressed to M. Warlmont, 27 Rue Notre Dame aux Neiges, Brussels.—*Med. Times and Gazette*, February 21, 1857.

Æsculapius the Son of Apollo.—It is said that the great Boerhaave was more proud of his success as a flutist than of his scientific glories. Haller, the universal genius, was an accomplished musician, and delighted in taking his part on the violoncello. Orfila, in place of becoming the founder of modern toxicology, had well-nigh turned his magnificent baritone voice to profit on the stage. M. Bataille, one of the most admired of the singers at the *Opera Comique*, is a doctor of medicine; and a young *agrégé* of great promise, and possessed of a beautiful tenor voice, has deserted the Academies of science for that of music. Quite lately too, a M. Hans, a young man of 21 years of age, has made a promising *début* in Lablanche's character in Norma, at the *Theatre Italien*, and is engaged for next season in London. He is the son of the celebrated Rokitansky, of Vienna.—*Ibid*, Feb. 7, 1857.

Consumption of Tobacco in Paris.—The product of the sale of this substance in Paris, which in 1839 was but 9,647,783 francs, amounted in 1854 to the sum of 17,765,256 francs. Within that space of time the quantity of tobacco employed by the Parisians in pipe-smoking has doubled, and that used in cigars, quintupled, while snuff-taking has sensibly declined. Taking the probable number of persons above 15 who employ tobacco in Paris at about 420,000, we find that in the year 1854, each would smoke nearly 4 lbs. of tobacco, 143 cigars, and 4 cigarettes. Taking tobacco that is used in smoking in any way, and adding to it that employed for chewing, each individual may be calculated as consuming 5 lbs. avoirdupoise annually.—*Ibid.*

On Cholera in Children. By Dr. Mauthner.

Dr. Mauthner reports that in the year 1855, which was a year of scarcity, the cholera at Vienna committed great ravages. Of 78 severe cases occurring in children admitted into his klinik, 52 died and 26 recovered; while of 92 slighter cases received into the polyklinik, 34 recovered, 10 died, and 15 were taken to the hospital. Of all the epidemics since 1831, this has proved most fatal. Of near 5,500 cases of cholera which were officially made known, one-half died; and the children, taken alone, did not exhibit more fortunate results, for only one-third of the more severe cases recovered, and altogether only one-half.

Dr. Mauthner distinguishes three forms: *cholera levis*, (diarrhœa cholerica,) *cholera gravis*, or *vera*, (vomiting, diarrhœa and cyanosis,) and *cholera gravissima*, (cholera sicca, asphyetica, fullminam.) Of all the means he has found to exert the most decided effect in children is the nitrate of silver, but, in dangerous cases, it has to be given in rapid and large doses. Thus a clyster containing two grains in an ounce of water, with some oil, was administered every hour, while every quarter of an hour a teaspoonful was given of a solution of one grain in two ounces of water. This medicine was often the only one that the child would take, that kept on the stomach while it produced no ill consequences, and always at least arrested the pathognomonic watery diarrhœa. This was not necessarily followed by recovery, for the blood, becoming so totally changed from the commencement, all often proved in vain. Frequently, however, by the cessation of the diarrhœa and vomiting, time was gained, which, in a disease of such rapid course as the cholera, is of great value.—*Journal für Kinderkrankheiten.*

Treatment of Itch.—Dr. Schubert states that he always treats itch, both in private and hospital practice, by soft soap and salt. Eight ounces of the former and four of the latter are dissolved in a quart of water, the patient being well rubbed with the warm solution night and morning. It is rather a painful application, but a cure results in three or four days, and often sooner, except in very inveterate cases, when some more days are required. The skin is afterwards well cleansed in a bath or with soap and water.—*Medicin. Zeitung.*

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This apparatus therefore deserves the attention of physicians and surgeons, being from its price accessible to all, and in my judgment being an improvement on things of the kind now in use.

DR. JOHN DAWSON,

Professor of Anatomy and Physiology, Starling Medical College.

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It seems to me also well adapted to exercise extention and counter-extention in case of dislocations, having the advantage over any other instrument, by allowing manipulations of the limb during extension.

I cheerfully can recommend the instrument of Dr. Bunce to my professional brethren in the country who need to have a reliable apparatus on hand for such emergencies.

DR. GUSTAV. C. E. WEBER,

Professor of Surgery in Cleveland Medical College.

I fully concur with Professor Weber in relation to Doctor Bunce's Adjusting Splint.

PROCTOR THAYER, M. D.,

Professor of Anatomy and Physiology, Cleveland Medical College.

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